

**DoD 5010.15.1-M**  
**VOLUME VIII**



# **STANDARDIZATION OF WORK MEASUREMENT**

**Defense  
Work  
Measurement  
Standard  
Time  
Data  
Program**

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**VOLUME VIII**  
**STRUCTURAL WORK OCCUPATIONS**



DEPARTMENT OF DEFENSE  
DEFENSE INDUSTRIAL RESOURCES SUPPORT OFFICE  
CAMERON STATION  
ALEXANDRIA, VIRGINIA 22314

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VOLUME VIII

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1 Dec 77

IN REPLY  
REFER TO

CHANGE NO. 1  
DOD 5010.15.1-M

STANDARDIZATION OF WORK MEASUREMENT  
STRUCTURAL WORK OCCUPATIONS

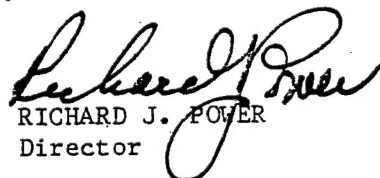
- I. DoD 5010.15.1-M, Volume VIII, 1 Dec 75, is changed as follows:
- A. Page v, Part Two, Section I, Line 1: Delete the word "three" and substitute "four."
  - B. Page v, Part Two, Section I: Add the following paragraph:

The Verb Index which is an alphabetical listing of the "title" line of the DWMSTDP Operation/Element Description sequenced by the verb, page D-1.

- C. Add pages D-1 thru D-13 after page C-13.

II. This change is an administrative addition of an index for the elements published in the volume.

III. This change sheet will be filed in front of the publication for reference purposes, after changes have been made.

  
RICHARD J. POWER  
Director



ASSISTANT SECRETARY OF DEFENSE  
WASHINGTON, D.C. 20301

DoD 5010.15.1-M  
VOLUME VIII

INSTALLATIONS AND LOGISTICS

18 Jun 75

FOREWORD

This volume of DoD 5010.15.1-M, "Standardization of Work Measurement," is one of a series published under the authority of DoD Directive 5010.15, Defense Integrated Management Engineering System (DIMES). It provides standard time data for Structural Occupations as classified by Department of Labor codes and includes guidelines for uniform application. Some of the tasks covered in these occupations are assembly of aircraft and vehicles, sheet metal work and welding. Others are oriented to the building trades and include masonry, carpentry, plumbing, and other related occupations.

Maximum use of the guidelines and standard time data is mandatory at each Department of Defense activity where Labor Performance Standards are developed and applied.

All of the included standard time data have been reviewed and approved by a Joint Service/Agency Standard Time Data Group prior to publication.

A handwritten signature in cursive script, reading "John J. Bennett".

John J. Bennett  
Acting Assistant Secretary of Defense  
(Installations and Logistics)

DISTRIBUTION

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STANDARD TIME DATA  
FOR  
STRUCTURAL WORK OCCUPATIONS

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DEFENSE WORK MEASUREMENT STANDARD TIME  
DATA PROGRAM (DWMSTDP)

STRUCTURAL WORK OCCUPATIONS

PART ONE - GUIDANCE

CHAPTER I - GENERAL INFORMATION

1.1 PURPOSE

This volume of Structural Work Occupations Standard Time Data is one of ten volumes of standard time data in the 11 volume series included in DWMSTDP. Structural Work Occupations as categorized by the Department of Labor includes those occupations concerned with fabricating, erecting, installing, paving, painting, repairing, and similarly working structures or structural parts, such as bridges, buildings, roads, motor vehicles, cables, airplane engines, girders, plates, and frames. The work generally occurs outside a factory or shop environment, except for factory production line occupations. Tools used are hand or portable power tools, and such materials as wood, metal, concrete, glass, and clay are involved. This volume provides a single DoD source for Standard Time Data which can be used in the development of labor standards for:

- 1.1.1 Organizations, activities, or functional areas whose primary missions correlate to structural work occupations, e.g., sheet metal work, welding, electrical assembling and installing, painting, cementing and carpentry.
- 1.1.2 For structural work operations within organizations, activities, or functional areas engaged in other than structural work occupations, e.g., a carpenter constructing a wood frame (aircraft cribbing) in a maintenance activity.
- 1.1.3 Work performed by personnel whose primary jobs are other than structural, but who may actually do that type work as a part of their jobs, e.g., an aircraft mechanic fabricating and installing aircraft cribbing in a maintenance activity.

1.2 SCOPE

This publication applies to all military services and defense agencies. The data contained herein will be used to the maximum extent practicable in the development of labor performance standards in compliance with DoD Directive 5010.15.

1.3 APPLICATION

The Structural Work Occupations Standard Time Data contained in this volume must be applied in accordance with the general information contained in the Basic Volume and the specific instructions contained in this volume.

1.4 SUBMISSION OF NEW DWMSTDP ELEMENTS

All newly developed or existing Structural Work Occupations Standard Time Data not included herein will be submitted with back-up motion pattern analysis to the Defense Industrial and Management Engineering Office (DIMEO) for review and possible inclusion

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in the updating changes to this volume. The Basic Volume contains procedures for submitting this input.

CHAPTER II - CODING

2.1 GENERAL

2.1.1 Information requirements applicable to DWMSTDP have been standardized. Applicable DoD Standard Data Elements have been utilized and all other data elements have been proposed for data representation standardization action in accordance with the provisions of DoD Instruction 5000.12, "Data Elements and Codes Standardization Procedures" and DoD 5000.12-M.

2.1.2 The complete coding structure for a Defense Work Measurement Standard Time Data element is explained in the Basic Volume. Figure 1 highlights a typical Occupation Code, Work Category Code, and Work Sub-Category Code for Structural Work data.

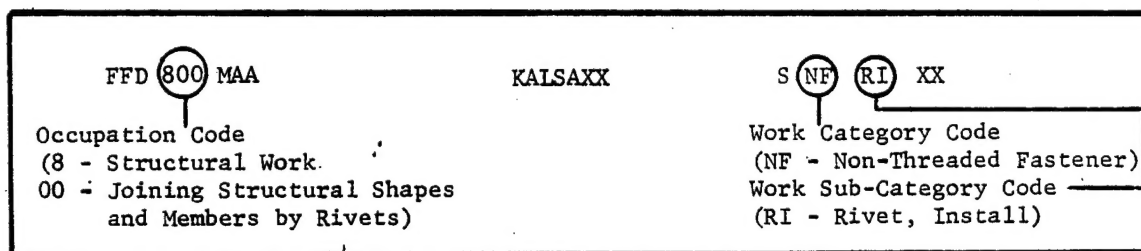


Figure 1 - DWMSTDP Coding Structure

2.2 TYPES OF CODES

2.2.1 Occupation Codes

The Occupation Codes for DWMSTDP elements in this volume conform to the numeric codes of Structural Work Occupations listed in the U.S. Department of Labor Dictionary of Occupational Titles. All Department of Labor Structural Work Occupations are shown in Figure 2. Figure 3 identifies the work ascribed to the specific occupations contained in this volume. There are occasions when a standard time data element may have common application to two or more Divisions of the total 8 Structural Work Occupational Category. If this is the case, an X is used in the Occupation Division position (second numeric) and the Group position (third numeric), e.g., 8XX. If the common application occurs only within the Occupation Division, an X is used in the Group position only (third numeric), e.g., 80X, 82X.

2.2.2 Work Category Code

The two position Work Category Code encircled in Figure 1 further identifies the various types of work performed within the occupation groups. This classification category indicates the major action being performed or major equipment involved in the DWMSTDP element. Figure 4 lists and defines the work categories used in coding Structural Work Occupations standard time data.

### 2.2.3 Work Sub-Category Code

The two position Work Sub-Category Code encircled in Figure 1 is a sub-division of the Work Category Code and identifies the object, process, or condition associated with the action or equipment. This code is generally oriented to a noun-verb relationship, e.g., "RI" is the code for "Rivet, Install" in the element description header line. However, if the noun-verb sequence in the element code causes a duplication of the code, the sequence has been modified. The noun-verb sequence will remain in the verbage of the element title whenever possible.

### 2.3 FUNDAMENTAL STANDARD TIME DATA

Every occupation includes general purpose data such as get, place, read or write which are fundamental to each occupation but not specific to any one. These are called "Universal" and are contained in Volume X - Universal Standard Time Data.

8 - STRUCTURAL WORK OCCUPATIONS

(STRUCTURAL WORK)

80 Occupations in Metal Fabricating, N.E.C.  
(Metal Fabricating, N.E.C.)

- 800. Riveters  
(Riveting)
- 801. Fitting, bolting, screwing, and related occupations  
(Fitting, bolting, screwing, and related work)
- 804. Tinsmiths, coppermiths, and sheet metal workers  
(Sheet metal work)
- 805. Boilermakers  
(Boilermaking and related work)
- 806. Transportation equipment assemblers and related occupations  
(Transportation equipment assembling and related work)
- 807. Bodymen, transportation equipment  
(Body work, transportation equipment)
- 809. Miscellaneous occupations in metal fabricating, n.e.c.  
(Miscellaneous metal fabricating, n.e.c.)

81 Welders, Flame Cutters, and Related Occupations  
(Welding, Flame Cutting, and Related Work)

- 810. Arc welders  
(Arc welding)
- 811. Gas welders  
(Gas welding)
- 812. Combination arc welders and gas welders  
(Combination arc and gas welding)
- 813. Resistance welders  
(Resistance welding)
- 814. Brazing, braze-welding, and soldering occupations  
(Brazing, braze-welding, and soldering)
- 815. Lead burning occupations  
(Lead burning)
- 816. Flame cutters and arc cutters  
(Flame and arc cutting)
- 819. Welders, flame cutters, and related occupations, n.e.c.  
(Welding, flame cutting, and related work, n.e.c.)

82 Electrical Assembling, Installing, and Repairing Occupations  
(Electrical Assembling, Installing, and Repairing)

- 820. Occupations in assembly, installation and repair of generators, motors, accessories, and related powerplant equipment  
(Generator, motor, and related powerplant equipment assembly, installation, and repair)

n.e.c. - not elsewhere classified

Figure 2 - Structural Work Occupations Codes

- 821. Occupations in assembly, installation, and repair of transmission and distribution lines and circuits  
(Transmission and distribution line and circuit assembly, installation and repair)
- 822. Occupations in assembly, installation, and repair of wire communication, detection, and signaling equipment  
(Wire communication, detection, and signaling equipment assembly, installation, and repair)
- 823. Occupations in assembly, installation, and repair of electronic communication, detection and signaling equipment  
(Electronic communication, detection, and signaling equipment assembly, installation, and repair)
- 824. Occupations in assembly, installation, and repair of lighting equipment and building wiring, n.e.c.  
(Lighting equipment and building wiring assembly, installation, and repair, n.e.c.)
- 825. Occupations in assembly, installation and repair of transportation and materials handling equipment, n.e.c.  
(Transportation and materials handling equipment assembly, installation, and repair n.e.c.)
- 826. Occupations in assembly, installation, and repair of industrial apparatus, n.e.c.  
(Industrial apparatus assembly, installation, and repair, n.e.c.)
- 827. Occupations in assembly, installation, and repair of large household appliances and similar commercial and industrial equipment  
(Large household appliance and similar commercial and industrial equipment assembly, installation and repair)
- 828. Occupations in fabrication, installation, and repair of electrical and electronic products, n.e.c.  
(Electrical and electronic product fabrication, installation, and repair, n.e.c.)
- 829. Occupations in assembly, installation, and repair of electrical products, n.e.c.  
(Assembly, installation, and repair of electrical products, n.e.c.)
- 84 Painting, Plastering, Waterproofing, Cementing, and Related Occupations  
(Painting, Plastering, Waterproofing, Cementing, and Related Work)
- 840. Construction and maintenance painters and related occupations  
(Construction and maintenance painting and related work)
- 841. Paperhangers  
(Paperhanging)
- 842. Plasterers and related occupations  
(Plastering and related work)
- 843. Waterproofing and related occupations  
(Waterproofing and related work)
- 844. Cement and concrete finishing and related occupations  
(Cement and concrete finishing and related work)
- 845. Transportation equipment painters and related occupations  
(Transportation equipment painting and related work)
- 849. Painting, plastering, waterproofing, cementing, and related occupations, n.e.c.  
(Painting, plastering, waterproofing, cementing, and related work, n.e.c.)
- n.e.c. - not elsewhere classified

Figure 2 - Structural Work Occupations Codes (Continued)

- 85 Excavating, Grading, Paving, and Related Occupations  
(Excavating, Grading, Paving, and Related Work)
850. Excavating, grading, and related occupations  
(Excavating, grading, and related work)
851. Drainage and related occupations  
(Drainage and related work)
852. Concrete paving occupations  
(Concrete paving)
853. Asphalt paving occupations  
(Asphalt paving)
859. Excavating, grading, paving, and related occupations, n.e.c.  
(Excavating, grading paving, and related work, n.e.c.)
- 86 Construction Occupations, N.E.C.  
(Construction Work, N.E.C.)
860. Carpenters and related occupations  
(Carpentry and related work)
861. Brick and stone masons and tile setters  
(Brick and stone masonry and tile setting)
862. Plumbers gas fitters, steam fitters, and related occupations  
(Plumbing, gas fitting, steam fitting, and related work)
863. Asbestos and insulation workers  
(Asbestos and insulation work)
864. Floor laying and finishing occupations  
(Floor laying and finishing work)
865. Glaziers and related occupations  
(Glass setting and related work)
866. Roofers and related occupations  
(Roofing and related work)
869. Miscellaneous construction occupations, n.e.c.  
(Miscellaneous construction work, n.e.c.)
- 89 Structural Work Occupations, N.E.C.  
(Structural Work, N.E.C.)
891. Occupations in structural maintenance, n.e.c.  
(Structural maintenance, n.e.c.)
892. Hoisting and conveying occupation, n.e.c.  
(Hoisting and conveying, n.e.c.)
899. Miscellaneous structural work occupations, n.e.c.  
(Miscellaneous structural work, n.e.c.)
- n.e.c. - not elsewhere classified

Figure 2 - Structural Work Occupations Codes (Continued)

DWMSTDP STRUCTURAL WORK OCCUPATIONS CODES

<u>Code</u>	<u>Occupation</u>	<u>Work Description</u>
800	Riveters (Riveting).	Joining structural shapes and members by rivets.
804	Tinsmiths, coppersmiths, and sheet metal workers (Sheet metal work).	Laying out, cutting to size, bending or shaping, and soldering, brazing, riveting, or crimping sheet metal, such as copper, steel, aluminum, galvanized iron, and tinplate, to fabricate or repair sheet metal items, such as gutters, hot and cold air vents, cabinets, and light tanks.
807	Bodymen, transportation equipment (Body work, transportation equipment).	Repairing body members, parts, components, and attachments for such transportation equipment as automobiles, aircraft, rail equipment, motorcycles, boats, and military tanks.
809	Miscellaneous occupations in metal fabricating, n.e.c. (Miscellaneous metal fabricating, n.e.c.).	Fabricating structures from metal and related materials, not elsewhere classified.
810	Arc welders (Arc welding).	Welding, using electric welding equipment which achieves welding temperature and jointure by passing electric current across an air gap between the workpiece and a manually or mechanically guided electrode.
811	Gas welders (Gas welding).	Welding, using gas-welding equipment.
813	Resistance welders (Resistance welding).	Welding with welding equipment that passes an electric current through workpiece to achieve welding temperature and jointure without filler material.
814	Brazing, braze-welding, and soldering occupations (Brazing braze-welding and soldering).	Brazing, braze-welding, or soldering, using electric or gas-fired ovens and equipment.
816	Flame cutters and arc cutters (Flame and arc cutting).	Severing or trimming materials, using gas flame or electric-arc cutting equipment.

n.e.c. - not elsewhere classified

Figure 3 - Work Description of DWMSTDP Structural Work Occupations Codes

<u>DWMSTDP STRUCTURAL WORK OCCUPATION CODES</u>		
<u>Code</u>	<u>Occupation</u>	<u>Work Description</u>
821	Occupations in assembly, installation, and repair of transmission and distribution lines and circuits (Transmission and distribution line and circuit assembly, installation and repair).	Erecting and repairing powerlines and circuits for transmission and distribution of electricity, and assembling and erecting related equipment and structures.
823	Occupations in assembly, installation, and repair of electronic communication, detection and signaling equipment (Electronic communication, detection, and signaling equipment assembly, installation, and repair).	Assembling equipment components; connecting and testing circuitry; installing equipment to provide electronic communication, detection, signaling, recording, analyzing, and computing services; and making on-site repairs in buildings, ships, trains, and aircraft.
824	Occupations in assembly, installation, and repair of lighting equipment and building wiring, n.e.c. (Lighting equipment and building wiring assembly, installation, and repair, n.e.c.).	Wiring buildings and adjacent yards to provide electricity for power and lighting; assembling and installing lighting equipment, conduit switches, junction and fuse boxes, and related accessories and controls; and repairing wiring and components, not elsewhere classified.
825	Occupations in assembly, installation and repair of transportation and materials handling equipment, n.e.c. (Transportation and materials handling equipment assembly, installation, and repair n.e.c.).	Wiring and repairing electrical power units and controls for transportation and material-handling equipment, and adjusting or repairing electrical components and circuits, not elsewhere classified.
829	Occupations in assembly, installation, and repair of electrical products, n.e.c. (Assembly, installation, and repair of electrical products, n.e.c.).	Assembly, installing, erecting, and repairing electrical equipment and related structures not elsewhere classified.
844	Cement and concrete finishing and related occupations (Cement and concrete finishing and related work).	Covering, leveling, and smoothing cement and concrete surfaces.

n.e.c. - not elsewhere classified

Figure 3 - Work Description of DWMSTDP Structural Work Occupations Codes (Continued)



DWMSTDP STRUCTURAL WORK OCCUPATION CODES

<u>Code</u>	<u>Occupation</u>	<u>Work Description</u>
845	Transportation equipment, painters and related occupations (Transportation equipment painting and related work).	Applying paint, asphalt undercoatings and related materials to transportation equipment including automobiles, trucks, trailers, aircraft and railway cars.
853	Asphalt paving occupations (Asphalt paving).	Combining asphaltic ingredients at mobile batching plants; applying asphalt to roadbeds and other sub-structures; and shaping and finishing asphalt; involves operating or tending machines for mixing, spreading, compacting, and leveling paving materials, and using rakes, shovels, and other devices.
860	Carpenters and related occupations (Carpentry and related work).	Preparing and installing wooden structures and structural members, using band saws, rip saws, planers, braces, hammers, and other carpentry tools and woodworking machines.
861	Brick and stone masons and tile setters (Brick and stone masonry and tile setting).	Preparing and laying brick, concrete block, tile, marble, and related materials, using chisels, hammers, trowels, and other handtools and implements.
862	Plumbers, gas fitters, steam fitters, and related occupations (Plumbing, gas fitting, steam fitting, and related work).	Assembling and installing gas, steam, plumbing, and related fixtures, pipes, and fittings in structures, using pipe-cutting and pipe-threading tools, welding equipment, and other pipe-fitting tools and equipment.
863	Asbestos and insulation workers (Asbestos and insulation work).	Covering and lining structures with asbestos, cork, canvas, tar paper, magnesia, and related materials, using saws, knives, rasps, trowels, and other tools and implements.
864	Floor laying and finishing occupations (Floor laying and finishing work).	Installing inlaid, hardwood, or composition floors, and laying asphalt, cork, linoleum, and rubber blocks or sheet materials, using rollers, knives, trowels, sanding machines, and other devices.

n.e.c. - not elsewhere classified

Figure 3 - Work Description of DWMSTDP Structural Work Occupations Codes (Continued)

<u>DWMSTDP STRUCTURAL WORK OCCUPATIONS CODES</u>		
<u>Code</u>	<u>Occupation</u>	<u>Work Description</u>
865	Glaziers and related occupations (Glass setting and related work).	Preparing and setting glass in structures, using bolts, screws, putty, grinding and buffing wheels, glass-cutting tools, and other materials and devices
866	Roofers and related occupations (Roofing and related work).	Covering roofs and exterior walls of structures with slate, asphalt, aluminum, wood, and related materials, using brushes, knives, punches, hammers, and other tools.
n.e.c. - not elsewhere classified		

Figure 3 - Work Description of DWMSTDP Structural Work Occupations Codes (Continued)

STRUCTURAL WORK OCCUPATIONS WORK CATEGORY CODES

<u>Work Category</u>	<u>Code</u>	<u>Definition</u>
Actuate	AC	<p>Manual manipulation of an object for engaging, disengaging, starting or stopping a device, (Examples: crank, dial, set with knob, move lever.)</p> <p>The process of manipulating an object by cranking, turning, or moving through a fixed part.</p> <p>Putting something else in action by handling a switch or control.</p>
Body Motion	BM	Gross foot, leg, and body movement (other than basic manual and eye motions). (Examples: leg motion, horizontal change, sit and stand, vertical change, walk.)
Clean	CL	The removal of foreign matter by chemical, mechanical, or manual process. (Examples: ultrasonic cleaning, abrasive cleaning, use of solvent, rubbing, wiping, sweeping.)
Clamp	CP	The action required to accomplish the nonmanual holding of object(s) with a clamp when required for repairing, modifying, manufacturing or assembly operations. (Examples: "C", cleco, spring, hose, cable, conduit clamps, etc.)
Disassembly/Assembly	DA	The action(s) required to remove, install or replace assemblies or components parts when the primary purpose is to place an object(s) or part(s) on or into another object or part so that they fit, connect or are secured to each other to form a unit. These actions do not include fabrication of parts or items. This category generally applies to special or higher level data.
Equipment - Metalworking	EM	The operation or preparation for operation of any powered <u>stationary-mounted</u> metal working machine or equipment used for the act or process of making or changing an object of metal. (Examples: metal lathe, milling machine, powered hacksaw)

Figure 4 - Major Categories of Work Used in Coding Structural Work Occupations Data

STRUCTURAL WORK OCCUPATIONS WORK CATEGORY CODES

<u>Work Category</u>	<u>Code</u>	<u>Definition</u>
Fabricate	FA	The actions required to manufacture, form or produce an item from raw or new material by shaping, cutting or forming by hand or mechanical means. This category generally applies to special or higher level data.
Gauge and Measure	GM	The procedure by which the size amount extent, or capacity of an item is determined. (Examples: bisect, gauge, mike, square, weigh)
Inspect and Test	IT	The procedure or action by which an item is subjected to comparisons or measurements to determine its qualities for use. (Examples: use of bore indicating gauge, use of micrometers, use of feeler gauge, eye times, check mandrel for run-out)
Job Preparation	JP	The actions required to prepare an object(s), work place, or employee, or any combination of the three for ensuing work. NOTE: Excluded from this category are layout, packaging and machine setup.
Layout	LO	Laying out straight lines or radii including drawings or scribing on any appropriate material. (Examples: measuring with scale or tape to locate points by intersecting lines, chalk-line layout, surface preparation using layout dye.)
Material Handling Devices	MH	The process of locating, relocating, positioning, and aligning mechanical devices such as conveyors, pallet jacks, hoists, carts, slings, etc., for the purpose of moving objects or moving the devices out of the way.
Non-threaded Fastener	NF	The permanent or semipermanent holding or locking of mating objects by other than threads or clamping actions.

Figure 4 - Major Categories of Work Used in Coding Structural Work Occupations Data  
(Continued)

STRUCTURAL WORK OCCUPATIONS WORK CATEGORY CODES

<u>Work Category</u>	<u>Code</u>	<u>Definition</u>
Object Handling	OH	The process of manually moving an object for the purpose of changing its location, position, or alignment. The movement path may or may not be fixed. The primary purpose of this handling is not to activate another object or device.
Paint	PA	To cover a surface by applying and spreading liquid or paste with a brush, spray gun, or roller. (Examples: paint, varnish lacquer, shellac, wax.)
Process Time	PT	The interval of time made up of a combination of manual and machine time components, so integrated that it would be impossible or impractical to separate and analyze them with Methods Time Measurement. Process time may be obtained by stopwatch, manufacturers' specs or formulae.
Surface Repair	SR	The process by which the surface of an object is changed or modified to restore the object to a serviceable condition. This category does not include removal or installation of the object to be repaired. This category generally applies to special or higher level data.
Setup	SU	The initial preparation of machinery and/or powered equipment necessary to perform work on an object and/or the subsequent "Tear Down."
Threaded Fastener	TF	Tightening or loosening a threaded object--bolt, nut, screw, or hand-knob by hand. (Examples: fingerturn-per thread, spin, tighten or loosen--moderate pressure.)
Tool Use Hand Operation - Non-powered	TL	The use or preparation for use of any non-powered implement, instrument or utensil held in the hand and used for cutting, hitting, digging, rubbing, etc. (Examples: knife, saw, hammer, shovel, rake, prybar, needle for sewing.)

Figure 4 - Major Categories of Work Used in Coding Structural Work Occupations Data  
(Continued)

STRUCTURAL WORK OCCUPATIONS WORK CATEGORY CODES		
<u>Work Category</u>	<u>Code</u>	<u>Definition</u>
Tool, Powered - Hand-held	TP	The use or preparation for use of any hand-held tool which derives its primary power for operation from a source other than the operator or user. (Examples: electric portable saw, portable pneumatic wrench.)
Vising	VS	The action required to accomplish the nonmanual holding of object(s) with a vise while repairs, modifications, or manufacturing operations are being performed. (Examples: tighten or loosen vise, rotate vise, quick acting vise.)
Wire Handling	WH	Elements of work associated with the build up, installation, or repair of circuitry such as electrical, electronic, or telephonic.

Figure 4 - Major Categories of Work Used in Coding Structural Work Occupations Data  
(Continued)

DEFENSE WORK MEASUREMENT STANDARD TIME  
DATA PROGRAM (DWMSTDP)

STRUCTURAL WORK OCCUPATIONS

PART TWO - STANDARD TIME DATA

SECTION I - INDEXES

This provides four indexes as follows:

The Occupation Code Index which includes the page location for each Code in both the DWMSTDP Element Index and the DWMSTDP Element Listing, Pages A-1 through A-3.

The DWMSTDP Element Index which is sequenced according to the DWMSTDP Element Code, pages B-1 through B-14.

The Noun/Verb Index which is an alphabetical listing of the "title" line of the DWMSTDP operation/element description, pages C-1 through C-13.

The Verb Index which is an alphabetical listing of the "title" line of the DWMSTDP Operation/Element Description sequenced by the verb, page D-1.

OCCUPATION CODE INDEX

<u>Code</u>	<u>Occupation</u>	<u>DWMSTDP Element Index</u>	<u>Page</u>	<u>DWMSTDP Element Listing</u>
8XX	Structural Work, Common	B-1		1
80X	Metal Fabricating, Common	B-1		2
800	Riveters (Riveting).	B-1		7
804	Tinsmiths, coppersmiths, and sheet metal workers (Sheet metal work).	B-2		12
807	Bodymen, transportation equip- ment, (Body work, transportation equipment).	B-2		13
809	Miscellaneous occupations in metal fabricating, n.e.c. (Miscellaneous metal fabri- cating, n.e.c.).	B-5		32
81X	Welders, Flame Cutters, and Related Occupations (Welding, Flame Cutting, and Related Work).	B-5		33
810	Arc welders (Arc welding).	B-6		39
811	Gas welders (Gas welding).	B-7		40
813	Resistance welders (Resistance welding).	B-7		41
814	Brazing, braze-welding, and soldering occupations (Braz- ing braze welding and soldering).	B-7		41
816	Flame cutters and arc cutters (Flame and arc cutting).	B-7		41
82X	Electrical Assembling, Installing, and Repairing Occupations (Elec- trical Assembling, Installing, and Repairing), Common	B-7		43



OCCUPATION CODE INDEX

<u>Code</u>	<u>Occupation</u>	Page	
		<u>DWMSTDP Element Index</u>	<u>DWMSTDP Element Listing</u>
821	Occupations in assembly, installation, and repair of transmission and distribution lines and circuits (Transmission and distribution line and circuit assembly, installation and repair).	B-8	48
823	Occupations in assembly, installation, and repair of electronic communication, detection and signaling equipment (Electronic communication, detection, and signaling equipment assembly, installation, and repair.	B-9	51
824	Occupations in assembly, installation, and repair of lighting equipment and building wiring, n.e.c. (Lighting equipment and building wiring assembly, installation, and repair, n.e.c.).	B-9	51
825	Occupations in assembly, installation and repair of transportation and materials handling equipment, n.e.c. (Transportation and materials handling equipment assembly, installation, and repair n.e.c.).	B-9	52
829	Occupations in assembly, installation, and repair of electrical products, n.e.c. (Assembly, installation, and repair of electrical products, n.e.c.).	B-9	53
844	Cement and concrete finishing and related occupations (Cement and concrete finishing and related work).	B-9	54

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<u>Code</u>	<u>Occupation</u>	<u>DWMSTDP Element Index</u>	<u>Page</u>	<u>DWMSTDP Element Listing</u>
845	Transportation equipment, painters and related occupations (Transportation equipment painting and related work).	B-9		55
853	Asphalt paving occupations (Asphalt paving).	B-10		55
86X	Construction Occupations (Construction Work), Common	B-10		56
860	Carpenters and related occupations (Carpentry and related work).	B-10		59
861	Brick and stone masons and tile setters (Brick and stone masonry and tile setting).	B-11		62
862	Plumbers, gas fitters, steam fitters, and related occupations (Plumbing, gas fitting, steam fitting, and related work).	B-12		64
863	Asbestos and insulation workers (Asbestos and insulation work).	B-13		69
864	Floor laying and finishing occupations (Floor laying and finishing work).	B-13		70
865	Glaziers and related occupations (Glass setting and related work).	B-13		70
866	Roofers and related occupations (Roofing and related work).	B-13		71

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8XX	MAO	MCPCIXX	VARIABLE	CLAMP(BAR), INSTALL AND REMOVE	1
8XX	MAF	MGMRL01	317	RULE, USE TO MEASURE	
9XX	MAF	MJPOC01	211	DIE, CHANGE IN STOCK, HAND THREADING DIE	
8XX	MAF	MJPGT01	130	GAS, TURN ON, LIGHT, AND TURN OFF, GAS BURNER FOR HEATING SOLDERING IRON OR SIMILAR	
8XX	MAA	SJPD101	802	DIE, INSTALL IN AND REMOVE FROM DIE STOCK, TWO SETSCREWS SECURING	
8XX	MAF	SJPPP01	363	POUCH(TOOL), PUT AROUND WAIST WITH STRAP AND REMOVE	
9XX	MAW	MLQLMXX	VARIABLE	LINE, MARK WITH CHALK LINE	
8XX	MAA	TLOLIXX	TABLE	LINE, INSCRIBE, CIRCULAR, USING FINGER AS A GUIDE	2
8XX	MAF	MOHLM01	347	LADDER(EXTENSION), MOVE, WEIGHT TO 60 POUNDS	
8XX	MAF	MOHLM02	440	LADDER(EXTENSION), MOVE, LADDER 20 FEET LONG	
8XX	MAA	MTLHPXX	VARIABLE	HOLE, PUNCH WITH PORTABLE PUNCH	
8XX	MAF	MTLR01	54	RATCHET, REVERSE ON THREADING TOOL	
3XX	MAF	STPCC01	243	CHISEL, CHANGE IN PNEUMATIC HAND CHIPPER	
80X	MAA	MGMHG01	178	HOLE, GAUGE TO DETERMINE RIVET LENGTH	
80X	MAA	SJPTS01	1638	TOOL(AIRLOC), SET UP FOR INSTALLATION OR REMOVAL OF PIN IN AIRLOC STUD	3
80X	MAA	SJPTS02	353	TOOL(PNEUMATIC SQUEEZE), SET UP AND ASIDE, FOR INSTALLATION OF PIN IN AIRLOC STUD	
80X	MAA	MNFFLXX	VARIABLE	FASTENER(CAMLOC), LOOSEN	
80X	MAA	MNFFTXX	VARIABLE	FASTENER(CAMLOC), TIGHTEN	
80X	MBA	SNFFIXX	VARIABLE	FASTENER(HIGH STRENGTH), INSTALL	4
80X	MBA	SNFFRXX	VARIABLE	FASTENERS(HIGH STRENGTH), REPLACE	5
80X	MAA	SNFFSXX	VARIABLE	FASTENER(TURNLOCK), SEAT AND TIGHTEN	
80X	MAA	SNFFUXX	VARIABLE	FASTENER(TURNLOCK), UNLOCK	
80X	MAA	SNFLIXX	VARIABLE	LOCK(WEDGE), INSTALL	
80X	MBA	SNFLR01	231	LOCK(WEDGE), REMOVE WITH PNEUMATIC TOOL	6
80X	MAA	MTLFUXX	VARIABLE	FINDER(HOLE), USE, LEAF TYPE	
80X	MAA	MTLHRXX	VARIABLE	HOLE, REAM WITH HAND REAMER	
80X	MUA	STLACXX	VARIABLE	ALUMINUM, CUT WITH COMPOUND LEVER SNIPS, PER LINEAR INCH	
80X	MAA	STLLRXX	VARIABLE	LAMINATION, REMOVE ONE LAYER FROM SHIMSTOCK, TO TWO INCHES WIDE AND SIX INCHES LONG	
80X	MAF	STLMCXX	VARIABLE	METAL, CUT WITH SNIPS, PER INCH, SHEET METAL	7
800	MAA	TEMHOXX	TABLE	HOLE, DIMPLE(COLD AND HOT)	
800	MAA	SITRI01	226	RIVET, INSPECT WITH LIGHT	
800	MAA	SITRI02	370	RIVET, INSPECT WITH LIGHT AND MIRROR	
800	MAA	SJPGS01	424	GUN(RIVET), SET UP, INITIAL	

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OCCUP- ATION	QUALITY	DWNSTDP ELEMENT	TNU VALUE	OPERATION/ELEMENT DESCRIPTION	PAGE
800	MAA	SJPGS02	173	GUN(RIVET),SET UP,CHANGE RIVET SET	7
900	MAA	SNFCRXX	VARIABLE	RIVET,CUT PROUDING HEAD WITH RIVET GUN AND CHISEL	9
800	MAA	SNFDRXX	VARIABLE	RIVET,DRIVE OUT WITH HAMMER AND PIN PUNCH,2- MAN OPERATION	
800	MUA	SNFRXX	VARIABLE	FASTENER(BLIND),REMOVE,DEUTSCH DRIVE PIN RIVET	
800	MAA	SNFIRXX	VARIABLE	RIVET(DEUTSCH DRIVE PIN),INSTALL,ALL SIZES	
800	MAA	SNFRDXX	VARIABLE	RIVET,DRILL AND REMOVE,COUNTERSUNK OR UNIVERSAL HEAD	9
800	MAA	SNFR1XX	VARIABLE	RIVET,INSTALL	
800	MAA	SNFR107	693	RIVET,INSTALL,COLLARED FASTENER,3/16-1/4 INCH DIAMETER,FIRST RIVET	
800	MAA	SNFR108	335	RIVET,INSTALL,COLLARED FASTENER 3/16-1/4 INCH DIAMETER,ADDITIONAL RIVET	
800	MAA	SNFR109	703	RIVET(HI-SHEAR),INSTALL,FIRST	10
800	MAA	SNFR110	466	RIVET(HI-SHEAR),INSTALL,ADDITIONAL	
800	MAA	SNFR111	525	RIVET,INSTALL,BLIND,PULLED,ALL TYPES,FIRST RIVET	
800	MAA	SNFR112	445	RIVET,INSTALL,BLIND,PULLED,ALL TYPES,EACH ADDITIONAL RIVET	
800	MAA	SNFRKXX	VARIABLE	RIVET,KNOCK OUT,COLLARED FASTENER,ALUMINUM	
900	MUA	SNFRXX	VARIABLE	RIVET,REMOVE,SOLID,DRIVEN	11
900	TAA	BPTMHXX	VARIABLE	METAL,HEAT WITH DIMPLING DIE	
800	TAA	9PTRS01	257	RIVET,SET WITH PNEUMATIC GUN,PROCESS TIME ONLY	
800	MAA	SSUDS01	3359	DIMPLE MACHINE,SET UP(COLD)	
800	MAA	SSUGA01	1121	GAP(DIE),ADJUST(DIMPLING MACHINE-COLD)	12
800	MAA	SSUMS01	4624	MACHINE(HOT DIMPLE),SET UP	
800	MAA	STLOFX	VARIABLE	DIMPLE(COLD),FORM WITH HAND DIMPLER	
904	MAF	M7HPPXX	VARIABLE	PIECES,POSITION TO ASSEMBLE PITTSBURGH LOCK SEAM	
807	MUA	SFACHXX	VARIABLE	HOLE,CUT IN ALUMINUM TO .064 INCH THICKNESS, RECTANGULAR ACCESS HOLE	13
807	MUA	SFAOFXX	VARIABLE	DOUBLER(OR FILLER),FABRICATE,FLAT CIRCULAR	
807	MUA	SFAFFXX	VARIABLE	FILLER(OR DOUBLER),FABRICATE,FLAT RECTANGULAR, TO .064 INCH THICK	14
807	MUA	SFAHCXX	VARIABLE	HOLE,CUT IN ALUMINUM TO .064 INCH THICKNESS, CIRCULAR ACCESS HOLE	
807	MAA	9JPTP01	922	TOOLS,PREPARE FOR JO-BOLT INSTALLATION	15
807	MAA	SJPCI01	1330	CARTRIDGE(SEALANT),INSTALL IN AND REMOVE FROM GUN	
807	MAA	9NFRGXX	VARIABLE	GRIMMET(AND STUD),REMOVE,DUZUS FASTENER,MANUAL MOTIONS ONLY	
807	MUA	SNFCCXX	VARIABLE	COLLAR,CUT FROM DRAW TYPE SHEAR PIN	16

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OCCUP- ATION	QUALITY	DWMSTDP ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION	PAGE
807	MAA	SNFFI01	497	FASTENER(ANCHORED), INSTALL MISSING FLOATING OR CHANNEL NUT ONLY, ALL TYPES, FIRST PIECE	16
807	MAA	SNFFI02	454	FASTENER(ANCHORED), INSTALL MISSING FLOATING OR CHANNEL NUT ONLY, ALL TYPES, ADDITIONAL PIECE	
807	MUA	SNFFI03	3610	FASTENER(ANCHORED), INSTALL CAMLOC OR AIRLOC RECEPTACLE, OR DZUS SPRING, 1-MAN OPERATION, FIRST PIECE	17
807	MUA	SNFFI04	1840	FASTENER(ANCHORED), INSTALL CAMLOC OR AIRLOC RECEPTACLE, OR DZUS SPRING, 1-MAN OPERATION, ADDITIONAL PIECE	
807	MUA	SNFFI05	5770	FASTENER(ANCHORED), INSTALL CAMLOC OR AIRLOC RECEPTACLE, OR DZUS SPRING, 2-MAN OPERATION, FIRST PIECE	
807	MUA	SNFFI06	3250	FASTENER(ANCHORED), INSTALL CAMLOC OR AIRLOC RECEPTACLE OR DZUS SPRING, 2-MAN OPERATION, ADDITIONAL	18
807	MUA	SNFFI07	18850	FASTENER(ANCHORED), INSTALL CHANNEL NUT ASSEMBLY WITH BLIND RIVETS, FIRST OR SINGLE THREE-NUT LENGTH	
807	MUA	SNFFI08	4530	FASTENER(ANCHORED), INSTALL CHANNEL NUT ASSEMBLY WITH BLIND RIVETS, EACH ADDITIONAL THREE-NUT LENGTH	
807	MUA	SNFFI09	14970	FASTENER(ANCHORED), INSTALL CHANNEL NUT ASSEMBLY TO EXISTING HOLES WITH BLIND RIVETS, FIRST OR SINGLE THREE-NUT LENGTH	
807	MUA	SNFFI10	2880	FASTENER(ANCHORED), INSTALL CHANNEL NUT ASSEMBLY TO EXISTING HOLES WITH BLIND RIVETS, EACH ADDITIONAL THREE-NUT LENGTH	
807	MUA	SNFFI11	5390	FASTENER(ANCHORED), INSTALL NUT PLATE, 1-MAN OPERATION, ALL TYPES, FIRST PIECE	19
807	MUA	SNFFI12	3180	FASTENER(ANCHORED), INSTALL NUT PLATE, 1-MAN OPERATION, ALL TYPES, ADDITIONAL	
807	MUA	SNFFPXX	VARIABLE	FASTENER(ANCHORED), PREPARE HOLE AND INSTALL	20
807	MUA	SNFFRXX	VARIABLE	FASTENER(ANCHORED), REPLACE	21
807	MBA	SNFGIXX	VARIABLE	GROMMET(CAMLOC), INSTALL WITH SNAP RING	
807	MAA	SNFGRXX	VARIABLE	GROMMET(CAMLOC), REMOVE, SECURED WITH SNAP RING	
807	MAA	SNFIGXX	VARIABLE	GROMMET(AND STUD), INSTALL, DZUS FASTENER, USING PNEUMATIC FLOOR DIMPLER	22
807	MAA	SNFINXX	VARIABLE	NUT(CHANNEL), INSTALL	
807	MBA	SNFISXX	VARIABLE	STUD(AIRLOC), INSTALL, PER STUD	
807	MAA	SNFNIXX	VARIABLE	NUT(ANCHOR), INSTALL IN EXISTING HOLES, EASY ACCESS	
807	MAA	SNFNI03	4502	NUT(ANCHOR), INSTALL, DRILL NEW HOLES USING ANCHOR NUT AS DRILL GUIDE, FIRST NUT, EASY ACCESS	23
807	MAA	SNFNI04	2863	NUT(ANCHOR), INSTALL, EASY ACCESS, DRILL NEW HOLES USING ANCHOR NUT AS DRILL GUIDE, EACH ADDITIONAL NUT	
807	MBA	SNFNI05	4039	NUT(ANCHOR), INSTALL WITH TWO RIVETS, FIRST NUT (USE DRILL JIG TO LOCATE ATTACH HOLES)	

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OCCUP- ATION	QUALITY	DW4STOP ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION	PAGE
907	MBA	SNFNI06	1448	NUT(ANCHOR), INSTALL WITH TWO RIVETS, ADDITIONAL NUT(USE DRILL JIG TO LOCATE ATTACH HOLES)	23
807	MUA	SNFPI01	458	PIN(DRAW TYPE SHEAR), INSTALL	24
807	MAA	SNFRFX	VARIABLE	FASTENER(ANCHORED), REMOVE WORN OR STRIPPED FLOATING OR CHANNEL NUT ONLY	
907	MAA	SNFRSXX	VARIABLE	STUD(AIRLOC), REMOVE PIN WITH AIRLOC TOOL	
807	MAA	SNFSIX	VARIABLE	STUD(CAMLOC), INSTALL WITH CAMLOC PLIERS, NO RETAINING WASHER	
907	MAA	SNFSI03	318	STUD(STRESS HEAD CAMLOC), INSTALL, PER STUD	
807	MAA	SNFSRXX	VARIABLE	STUD(CAMLOC), REMOVE, NO RETAINING WASHER	
807	MAA	SNFWI01	325	WASHER(SPLIT), INSTALL ON CAMLOC STUD ASSEMBLY	
807	MAA	SNFWI02	274	WASHER(SOLID), INSTALL ON CAMLOC STUD ASSEMBLY	25
807	MAA	SNFWR01	140	WASHER(SPLIT), REMOVE FROM CAMLOC STUD, PER WASHER	
807	TAA	BPTAC01	1591	ALUMINUM, CUT WITH DISC, ROUTER OR SIMILAR MOUNTED IN PNEUMATIC GUN, PROCESS TIME ONLY	
807	TAA	BPTAC02	1985	ALUMINUM, CUT WITH SAW MOUNTED IN PNEUMATIC GUN STARTS WITH SAW IN POSITION FOR CUTTING	
807	TAA	BPTBS01	50	BOLT(HUCK LOCK), SET WITH PULL TYPE GUN	
807	TAA	BPTCS01	153	COLLAR(RIVET), SPLIT WITH PNEUMATIC RIVET GUN, PROCESS TIME ONLY	
907	TAA	BPTJI01	49	JO-BOLT, INSTALL WITH PNEUMATIC TOOL	
807	TUA	SSRSAX	VARIABLE	SEALANT, APPLY WITH PNEUMATIC SEALANT GUN	26
807	MAA	MTEFIX	VARIABLE	FASTENER(ANCHORED), INSTALL RIV-NUT, MANUAL MOTIONS ONLY	
807	MBA	STFBIX	VARIABLE	BOLT(HI-LOK), INSTALL WITH MANUAL TOOLS	
807	MAA	STFBIG	473	BOLT(HI-LOK), INSTALL, POWER TOOLS, FIRST	27
807	MAA	STFBIO	390	BOLT(HI-LOK), INSTALL, POWER TOOLS, ADDITIONAL	
807	MBA	STFBRXX	VARIABLE	BOLT(HI-LOK), REMOVE, MANUAL TOOLS	
807	MBA	STFCIX	VARIABLE	COLLAR(HI-LOK BOLT), INSTALL, MANUAL TOOLS	
807	MBA	STFCRXX	VARIABLE	COLLAR(HI-LOK BOLT), REMOVE, MANUAL TOOLS	28
807	MAA	STFFI01	883	FASTENER(ANCHORED), INSTALL DILL NUT WITH TOOL, FIRST PIECE	
807	MAA	STFFI02	730	FASTENER(ANCHORED), INSTALL DILL NUT WITH TOOL, ADDITIONAL PIECE	
807	MUA	STFFI03	610	FASTENER(ANCHORED), INSTALL RIV-NUT, FIRST PIECE	
807	MUA	STFFI04	550	FASTENER(ANCHORED), INSTALL RIV-NUT, ADDITIONAL	29
807	MAA	STFFRXX	VARIABLE	FASTENER(ANCHORED), REMOVE DILL NUT	
807	MBA	STFIBXX	VARIABLE	BOLT(HI-TORQUE), INSTALL WITH PNEUMATIC TOOL, PER BOLT	
807	MAA	STFIB03	1069	BOLT(HI-TORQUE), INSTALL WITH HAND TOOLS IN UNOBSTRUCTED LOCATION	

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OCCUP- ATION	QUALITY	DWMSTOP ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION	PAGE
807	MAA	STF1804	1535	BOLT(HI-TORQUE), INSTALL WITH HAND TOOLS IN	29
807	MAA	STFIJXX	VARIABLE	JO-BOLT, INSTALL WITH HAND TOOL	30
807	MUA	STFJIXX	VARIABLE	JO-BOLT, INSTALL WITH ARC JO-BOLT GUN MODEL 7 OR SIMILAR	
807	MAA	STFJ103	631	JO-BOLT, INSTALL, CBSTRUCTED, USE JO-BOLT SET	
807	MUA	STFJRXX	VARIABLE	JO-BOLT, REMOVE	
807	MAA	STFRJXX	VARIABLE	JO-BOLT, REMOVE	31
807	MBA	STLACXX	VARIABLE	AREA(DAMAGED), CUT AWAY, ALUMINUM ALLOY TO .064 INCH THICKNESS, CIRCULAR AREA	
807	TUA	STLASXX	VARIABLE	ALUMINUM, SAW WITH JEWELER'S OR SKIN SAW, PER STRAIGHT LINEAR INCH	32
807	MBA	STLCAXX	VARIABLE	AREA(DAMAGED), CUT AWAY, ALUMINUM ALLOY TO .064 INCH THICKNESS, RECTANGULAR AREA	
807	MAA	STLDRXX	VARIABLE	DENT, REMOVE FROM ALUMINUM TO .064 INCH THICKNESS, PER SQUARE INCH	
809	MAF	MJPTSXX	VARIABLE	TRAMMEL, SET TO SCALE	
809	MAF	MTLDU01	152	DIVIDERS, USE TO SCRIBE 90-DEGREE ARC	33
809	MAF	MTLTU01	328	TRAMMEL, USE TO SCRIBE 90-DEGREE ARC, ONE OPERATOR, 36-INCH RADIUS	
81X	MAW	MACAA01	55	AMPERAGE, ADJUST ON AC OR DC WELDING MACHINE	
81X	MAO	MACCA01	56	CONTROLS(HEAT), ADJUST ON WELDING MACHINE	
81X	MAF	MACKOC1	93	KNOB, OPEN ON ACETYLENE TORCH TIP	
81X	MAW	MACMT01	74	MACHINE(WELDING), TURN ON OR OFF	
81X	MAW	MACVT01	69	VALVE(ACETYLENE AND OXYGEN), TURN OFF	
81X	MAF	MCLSCXX	VARIABLE	SLAG, CHIP WITH CHIPPING HAMMER, CHISEL, AND BRUSH	
81X	MAF	MCLSKXX	VARIABLE	SCALE, KNOCK FROM WELD WITH HAMMER AND BRUSH	34
91X	MAO	MCLSRXX	VARIABLE	SLAG, REMOVE WITH CHIPPING HAMMER	
91X	MAO	MCLSS01	30	SPATTER, SCRAPE PER INCH OF WELD	
81X	MAA	MCLTCXX	VARIABLE	TIP, CLEAN WITH SANDPAPER, WELDING GUN	
81X	MAF	MCLTC03	224	TIP, CLEAN WITH EMERY CLOTH WRAPPED AROUND FILE, SPOT WELDER	
81X	TBA	MCLTD01	728	TIP(ELECTRODE=WELDER), DRESS	
81X	MAC	MG4PC01	143	PART, CHECK FOR WARPAGE WITH 12-INCH SCALE	
81X	MAA	MJPCC01	546	CABLE(ELECTRODE HOLDER), CONNECT/DISCONNECT TO/FROM ARC WELDER	
81X	MAA	MJPEC01	350	ELECTRODE(TUNGSTEN), CHANGE IN TORCH	35
81X	MAW	MJPFA01	94	FLAME, ADJUST ON HAND TORCH	
81X	MAO	MJPGP01	110	GOGGLES(BURNING), PUT ON AND REMOVE	
81X	MAA	MJPHA01	954	HOSES(OXYGEN AND ACETYLENE), ATTACH AND REMOVE TO/FROM TORCH	

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81X	MAF	MJPJP01	435	JACKET(WELDERS), PUT ON AND TAKE OFF	35
81X	MAA	MJPRCXX	VARIABLE	ROD(WELDING), CHANGE IN ELECTRODE HOLDER	
81X	MAA	MJPRR01	83	REGULATOR, READJUST, TWO TANKS	
81X	MAA	MJPSP01	173	SHIELD(WELDING), PUT ON AND REMOVE	
81X	MAA	MJPSR01	76	SHIELD(WELDING), RAISE AND LOWER	36
81X	MAF	MJPTD01	251	TIP(TORCH), DETACH BY HAND	
81X	MAF	MJPTD02	104	TIP(ELECTRODE), DETACH FROM SPOTWELDER	
91X	MAF	MJPTI01	121	TIP(ELECTRODE), INSTALL ON SPOTWELDER	
81X	MAA	MJPTL01	67	TORCH(ACETYLENE), LIGHT WITH FRICTION TYPE IGNITER	
81X	MAF	MJPTROL	119	TENSION, RELEASE ON OXY-ACETYLENE WELDING REGULATOR	
81X	MAF	MJPVT01	321	VALVE(OXY-ACETYLENE CYLINDER), TURN OFF	
81X	TAA	MJPWP01	5206	WELDER(SPOT), PREPARE(ADJUST HEAT)	
81X	MAA	SJPTC01	669	TIP(OXY-ACETYLENE TORCH), CHANGE WITH WRENCH	
81X	MBA	SJPTGXX	VARIABLE	TIP(ELECTRODE), GRIND	37
81X	MAF	SJPTL01	349	TORCH(OXY-ACETYLENE), LIGHT AND TURN OFF	
81X	MUA	SNFSWXX	VARIABLE	SPOT(OR SEAM), WELD	
81X	MAA	SNFWAXX	VARIABLE	WELD(SPOT), ACCOMPLISH	
81X	MUA	SNFWSXX	VARIABLE	SPOT(OR SEAM), WELD ON SCIAKY STATIONARY WELDING MACHINE	
81X	MAW	MOHTP01	355	TANK, PUT ON HAND TRUCK	38
91X	MAW	MOHTR01	126	TANK, REMOVE FROM HAND TRUCK	
81X	TAA	BPTSW01	68	SPOT, WELD	
81X	MAA	MSUCA01	187	CYCLE DIALS(SPOT WELDING MACHINE), ADJUST	
81X	MUA	SSUMS01	3995	MACHINE(WELDING), SET UP, SCIAKY OR SIMILAR AND TEST WELD THREE SPOTS	
81X	MAA	SSUMS02	3461	MACHINE(WELDING), SET UP, SCIAKY OR SIMILAR AND TEST WELD ONE TWO INCH SEAM	39
81X	MAO	MTPTI01	119	TOOL, INSERT AND REMOVE, AIR HAMMER	
810	MAA	MJPEG01	221	ELECTRODE(HELI-ARC WELDING), GRIND	
810	MAA	MJPMS01	303	MACHINE(ARC WELDING), SET UP	
910	MAA	MJPPC01	293	POLARITY(ARC WELDING MACHINE), CHANGE	
810	MAA	SJPECXX	VARIABLE	ELECTRODE(HELI-ARC WELDING), CHANGE	
810	MAF	SJPRC01	354	ROD(WELDING), CHANGE IN ELECTRODE HOLDER	
910	MAW	MNFEP01	53	ELECTRODE, POSITION AND STRIKE ARC	40
810	EUA	MNFWAXX	VARIABLE	WELD, ACCOMPLISH, ARC WELD, PER INCH	
810	MAA	SNFWHXX	VARIABLE	WELD(INERT GAS-ARC), MAKE	
810	OBW	MOHAB01	193	ARC, BREAK AND MOVE TO NEXT WELD	



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811	MAO	MACVOXX	VARIABLE	VALVES(BLOWPIPE OXYGEN AND ACETYLENE),OPEN AND CLOSE	40
811	MAO	MCLHC01	751	HOLES(TORCH TIP),CLEAN	41
811	MAO	MCLHC02	62	HOLE(HIGH PRESSURE TIP),CLEAN	
811	MAO	MJPBL01	120	BLOWPIPE,LIGHT	
811	MAA	MJPTR01	635	TIP(ELECTRODE-GAS),REPLACE	
811	MAO	MJHBP01	45	BLOWPIPE,POSITION TO METAL	42
813	MAA	MSUTS01	129	THYRATON CONTROLS(SPOT WELDING MACHINE),SET	
814	MAA	SJPPP01	280	PRESSURE,PUMP IN BLOW TORCH TANK	
814	MAF	MNFSAXX	VARIABLE	SOLDER,APPLY TO SEAM OR JOINT,SHEET METAL	
816	MAA	MACFE01	78	FEED(FLAME CUTTING MACHINE),ENGAGE TO START AND TURN OFF	43
816	MAA	MJPTA01	152	TORCH(OXY-ACETYLENE-CUTTING),ADJUST FOR CUTTING REVEL	
816	MAA	MSURP01	145	BAR(RADIUS),PLACE IN AND REMOVE FROM FLAME CUTTING MACHINE	
816	MAA	MSUMP01	91	MACHINE(FLAME CUTTING),PLACE ON RING	
816	MAA	MSURP01	128	RING(FLAME CUTTING MACHINE),POSITION ON PLATE TO BURN CIRCLES	44
816	MAA	MSUSA01	63	SPEED DIAL(FLAME CUTTING MACHINE),ADJUST	
816	MAA	MSUTP01	103	TORCH ARM(FLAME CUTTING MACHINE),POSITION FOR BURNING CIRCLES OR STRAIGHT LINES	
816	MAA	MSUWR01	155	WHEEL(FLAME CUTTING MACHINE),REMOVE	
82X	MAA	MOACT01	586	COVER(RACEWAY BASE SECTION),INSTALL	45
82X	MAA	MOALC01	64	LUG(TERMINAL),CONNECT TO SWITCH	
82X	MAA	MOAST01	65	SOCKET(LAMP),INSERT IN REFLECTOR FITTING	
82X	MAF	MJPFUXX	VARIABLE	FISHTAPE(ELECTRICAL),UNWRAP FROM AND WRAP ON REEL,PER FOOT	
82X	MAF	MJPDP01	187	OILER,PREPARE FOR FILLING	46
82X	MAF	MJPST01	161	SWITCH,TURN OFF OR ON,BRANCH LIGHTING CIRCUIT	
82X	MAF	SNFTA01	443	TAPE,APPLY TO WIRE SPLICE	
82X	MAA	SNFTRO1	157	TIE(SPOT),REMOVE	
82X	MAA	SNFWCXX	VARIABLE	WIRE BUNDLE,COIL AND TIE	47
82X	MAA	SNFWT01	1838	WIRE BUNDLE,TAPE AND TIE	
82X	MAF	MJHBI01	914	BOX(JUNCTION),INSTALL ON CONDUIT	
82X	MAF	MJHPR01	90	PAPER,REMOVE FROM CONDUCTOR AFTER JUTER INSULATION HAS BEEN STRIPPED	
82X	MAF	MJHWA01	70	WIRE,ALIGN FOR FORMING IN ELECTRICAL BOX	48
82X	MAF	MJHWBXX	VARIABLE	WIRE,BEND 90 DEGREES FOR FORMING IN ELECTRICAL BOX	
82X	MAF	MJHWR01	1611	WRAPPING(PAPER),REMOVE FROM COIL OF WIRE	

DEFENSE WORK MEASUREMENT STANDARD TIME DATA  
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OCCUP- ATION	QUALITY	DWMSTDP ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION	PAGE
82X	MAA	SOHPP01	1393	PLUG/RECEPTACLE, PLACE IN PLASTIC BAG	45
82X	MAF	MTLBC01	253	BANDING, CUT ON REEL OF WIRE, CABLE, OR SIMILAR	
82X	MAF	MTLCR01	175	CONDUIT, REAM END, ONE INCH DIAMETER, HAND REAMER	
82X	MAF	MTLFU01	68	FISHTAPE (ELECTRICAL), USE, FEED INTO CONDUIT	
82X	MAF	MTLFU02	48	FISHTAPE (ELECTRICAL), USE, DISENGAGE TWO TAPES	
82X	MAF	MTLHC01	85	HOLE, CUT IN CARDBOARD CONTAINER WITH KNIFE	
82X	MAF	MTLHR01	134	HICKEY, REPOSITION ON CONDUIT	
82X	MAF	MTLLC01	83	LUG (TERMINAL), CRIMP TO WIRE	46
82X	MAF	MTLLP01	96	LOOP, PLACE ON TERMINAL AND CLOSE WITH PLIERS	
82X	MAF	MTLSB01	95	SPLICE, BEND PARALLEL TO CONDUCTOR WITH PLIERS	
82X	MAF	MTLSF01	413	SPLICE, FORM WITH PLIERS, PIGTAIL SPLICE	
82X	MAF	MTLTC01	343	THREAD, CUT IN CONDUIT	
82X	MAF	MTLW001	192	WIRE, DISCONNECT FROM FISHTAPE AFTER PULLING	
82X	MAF	STLCBXX	VARIABLE	CONDUIT, BEND WITH HICKEY	
82X	MAA	STLPCXX	VARIABLE	PLUG (COAXIAL), CUT FROM CABLE	47
82X	MAF	STLTBXX	VARIABLE	TUBING (ELECTRICAL METALLIC), BEND WITH MANUAL BENDER	
82X	MAF	MTPAP01	108	ARM (RAM), PULL TO FREE ANVIL, HYDRAULIC CONDUIT BENDER	
82X	MAF	MTPCBXX	VARIABLE	CONDUIT, BEND WITH HYDRAULIC BENDER	
82X	MAA	MWHS01	120	SPLICE (CENTER), MAKE	
82X	MAA	SWHSI01	1076	SPLICE (COAXIAL CABLE), INSTALL TO SHIELDED WIRE	48
82X	MAA	SWHSH01	2367	SPLICE (TWO WIRES), MAKE WITH STAKE-ON PLIERS	
82X	MAA	SWHSR01	151	SPLICE, REMOVE	
821	MAF	MBMCP01	1513	POLE, CLIMB TO LOWER CROSSARM, APPROXIMATELY 30 FEET	
821	MAF	MBMCP02	686	POLE, CLIMB FROM LOWER TO UPPER CROSSARM	
821	MAF	MBMPC01	402	POSITION, CHANGE HORIZONTALLY ON POLE	
821	MAF	SBMPC01	5843	POLE, CLIMB TO AND DESCEND FROM LOWER CROSSARM	49
821	MAF	MCLSC01	335	SHEATHING (LEAD CABLE), CLEAN BY SCRAPING	
821	MAF	MJPSP01	546	SLEEVES (RUBBER LINEMAN'S), PUT ON AND TAKE OFF	
821	MAF	SNFCI01	1411	CONNECTOR (SOLDERLESS), INSTALL, SPLIT BOLT TYPE	
821	MAF	MOHA101	2477	ANCHOR (AND ROD ASSEMBLY), INSTALL IN HOLE AND EXPAND ANCHOR	
821	MAF	MOHBR01	283	BELTING, REMOVE FROM LEAD SHEATHED CABLE	
821	MAF	MOHCO01	202	CUTOUT (FUSED), OPEN OR CLOSE ON POLE WITH DISCONNECT STICK	
821	MAF	MOHER01	359	EQUIPMENT, RAISE OR LOWER ON POLE WITH HANDLINE	50
821	MAF	MOHFR01	95	FILLER, REMOVE AND CUT, LEAD SHEATHED CABLE	

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OCCUP- ATION	QUALITY	DWMSTOP ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION	PAGE
821	MAF	MOHHI01	257	HOOD(RUBBER INSULATOR),INSTALL ON ENERGIZED LINE	50
821	MAF	MOHHP01	324	HOSE(RUBBER),PLACE ON ENERGIZED LINE	
821	MAF	MTFAA01	759	ANCHOR,ASSEMBLE TO ROD	
821	MAF	MTLPD01	157	PIKE,DRIVE INTO POLE,APPROXIMATELY 20 FEET ABOVE GROUND	
821	MAF	MTLPR01	415	POLE,ROTATE WITH CANT HOOK	
821	MAF	STLSD01	609	STEP(POLE),DRIVE INTO POLE WITH HAMMER	51
823	TAA	SWHJI01	7306	JACK/PLUG(INTERPHONE),INSTALL	
823	MAA	SWHJR01	2376	JACK/PLUG(INTERPHONE),REMOVE	
824	MAA	MDALI01	103	LAMP(FLUORESCENT),INSTALL IN LAMP HOLDER	
824	MAA	MDAPI01	72	PANEL(ELECTRICAL METER),INSTALL	
824	MAA	MDAPR01	42	PANEL(ELECTRICAL METER),REMOVE	
824	MAA	SDALI01	524	LEADS(LAMP SOCKET),INSERT THROUGH GROMMET	52
824	MAF	MOHCIO1	132	CABLE,INSERT END IN BOX CONNECTOR	
824	MAA	MWHWIO1	50	WIRE,INSERT THROUGH CLIP IN RACEWAY	
825	MAA	SCPCIO1	1791	CLAMP,INSTALL ON WIRE BUNDLE AND SECURE TO BULKHEAD	
825	MAA	SCPCR01	1173	CLAMP(ECPI),REMOVE FROM WIRE BUNDLE	
825	MAA	SCPCR02	1026	CLAMP,REMOVE FROM BULKHEAD	53
825	MAA	SCPWC01	1274	WIRE BUNDLE,CLAMP TO BULKHEAD	
825	MAA	SWHWRO1	1596	WIRE/WIRE BUNDLE,ROUTE IN AIRCRAFT	
825	MAA	SWHWT01	1296	WIRE BUNDLE,TIE TO TOMBSTONE	
829	MAF	MOHFIXX	VARIABLE	FUSE(ELECTRICAL),INSTALL	
829	MAF	MOHSR01	144	STARTER(FLUORESCENT),REPLACE IN FIXTURE	
829	MAF	STLBRXX	VARIABLE	BULB,REPLACE WITH BULB CHANGER	54
844	MAF	MACMD01	593	MIXTURE(DRY AGGREGATE),DUMP INTO MIXER FROM HOPPER	
844	MAF	SOHCA01	462	CHUTE(EXTENSION),ATTACH TO TRANSIT MIXER	
844	MAF	MTLCC01	3699	CONCRETE,CHIP WITH CHISEL AND HAMMER,SEVEN CUBIC INCHES	
844	MAF	MTPHE01	273	HANDLES(GUIDE),EXTEND OR RETRACT,CONCRETE SAW	
844	MAF	MTPHP01	272	HAMMER(PNEUMATIC),POSITION FOR DRILLING AND REMOVE AFTER DRILLING	
844	MAF	MTPSA01	177	SPEED,ADJUST ON SELF-PROPELLING UNIT OF CONCRETE SAW	
844	MAF	MTPUE01	342	UNIT(SELF-PROPELLING),ENGAGE AND DISENGAGE, CONCRETE SAW	55
845	MAA	MPAPSXX	VARIABLE	PAINT,SPRAY ON AIRCRAFT SURFACE,PER TEN SQUARE FEET	
845	MUA	SPAAI01	26690	ARROW(RESCUE),INSTALL ON AIRCRAFT	

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OCCUP- ATION	QUALITY	DWMSTOP ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION	PAGE
845	MUA	SPAT101	80610	INSIGNIA(NATIONAL-STAR),INSTALL ON AIRCRAFT	55
853	MAF	SNHWR01	200	WRAPPING(PAPER),REMOVE FROM 100-POUND BUNDLE OF ASPHALT	
853	MAF	MTLMS01	776	MIX(HOT BITUMINOUS),SPREAD WITH RAKE,PER SQUARE YARD	
853	MAF	STLA901	350	ASPHALT,BREAK INTO PIECES WITH AXE,100-POUND BUNDLE	56
86X	MAF	MACSL01	992	SCAFFOLD(PORTABLE),LOCK AND UNLOCK WHEELS	
86X	MAF	MITFM01	922	FRAME(DOOR),MEASURE AND CENTER IN OPENING	
86X	MAF	SITFC01	1041	FRAME(DOOR),CHECK FOR VERTICAL ALIGNMENT WITH LEVFL	
86X	MAF	MJPB001	112	BLOCK(SANDING),OBTAIN AND ATTACH SANDPAPER	
86X	MAF	SJPRC01	380	BELT,CHANGE ON HAND HELD SANDING MACHINE	
86X	MAF	MMH0R01	886	OBJECT,RAISE AND LOWER WITH MANUALLY OPERATED HOIST,AVERAGE 28-FOOT HEIGHT	57
86X	MAF	MNFAA01	367	ADHESIVE,APPLY TO FLOOR WITH SERPATED TROWEL, PER SQUARE FOOT	
86X	MAF	MNFR101	876	BRACE(BOTTOM),INSTALL IN METAL DOOR FRAME	
86X	MAF	SNFB101	380	BRACE(CENTER),INSTALL IN METAL DOOR FRAME	
86X	MAF	SNFW101	251	WEDGE,INSTALL TO HOLD DOOR FRAME IN PLACE	
86X	MAF	SNFW102	458	WEDGE,INSTALL TO RAISE AND LEVEL DOOR FRAME	
86X	MAF	MJHC001	256	CUTTER(GASKET),OBTAIN FROM CASE AND PUT AWAY	
86X	MAF	MJHFU01	352	FELT(ROOFING),UNROLL 15 FEET	
86X	MAF	MOHGRO1	245	GASKET,REMOVE FROM CUTTING BOARD AND ASIDE SCRAP	58
86X	MAF	SOHAF01	296	FRAME(AND ANCHORS),ADJUST IN OPENING,METAL DOOR FRAME	
86X	MAF	SOHFA01	1613	FRAME(METAL DOOR),ASSEMBLE	
86X	MAF	MTLBA01	411	BLADE(GASKET CUTTER),ADJUST WITH CLAMPING SCREWS	
86X	MAF	MTLBU01	538	BOB(PLUMB),USE	
86X	MAF	MTLCA01	176	CUTTER(GASKET),ADJUST TO SIZE FOR RING GASKET	
86X	MAF	MTLCP01	173	CUTTER(GASKET),POSITION TO BOARD AND REMOVE	
86X	MAF	MTLGL01	125	GUN(CAULKING),LOAD WITH CARTRIDGE	
86X	MAF	MTPTC01	578	TOOL,CONNECT TO AND DISCONNECT FROM EXTENSION CORD LYING ON FLOOR	59
860	MAW	MJPBH01	75	BOARD,HOLD FOR SAWING	
860	MAF	MJPBI01	234	BIT,INSTALL IN AND REMOVE FROM BRACE	
860	MAW	MJPBI02	173	BIT,INSTALL IN AND REMOVE FROM HAND DRILL	
860	MAW	MJPBI03	102	BIT,INSTALL IN AND REMOVE FROM SPIRAL DRILL	
860	MAF	MOHCA01	111	CARTRIDGE,ASSEMBLE TO STUD	

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OCCUP- ATION	QUALITY	DWMSTOP ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION	PAGE
860	MAW	MOHNG01	65	NAILS, GET FROM BOX	59
860	MAF	MOHPL01	704	PARTITION(ASSEMBLED), LIFT FROM FLOOR AND POSITION TO MARKS	
860	MAF	MOHPM01	277	PLATE(FOUNDATION), MAKE LEVEL WITH SHIMS	60
860	MAF	MOHPP01	441	PLATE(FOUNDATION), POSITION TO BOLTS SET IN CONCRETE	
860	MAW	MTLBPO1	69	BIT(AND BRACE), POSITION FOR DRILLING AND REMOVE	
860	MAF	MTLBSXX	VARIABLE	BOARD, SAW IN MITER BOX	
860	MAW	MTLDP01	37	DRILL(SPIRAL), POSITION TO MARK AND REMOVE	
860	MAW	MTLHD01	23	HOLE, DRILL WITH SPIRAL DRILL, PER STROKE	
860	MAF	MTLLS01	281	LINE, STRIKE WITH CHALK LINE	
860	MAW	MTLNP01	59	NAIL, POSITION AND START TO DRIVE WITH HAMMER	
860	MAF	MTLNSXX	VARIABLE	NAIL, START IN BOARD	61
860	MAW	MTLPA01	192	PLANE(HAND), ADJUST	
860	MAW	STLDHXX	VARIABLE	HOLE, DRILL WITH SPIRAL DRILL(ONE INCH HOLE)	
860	MAW	STLNRXX	VARIABLE	NAIL, REMOVE WITH HAMMER	
860	MAF	MTPG001	99	GUN(POWDER ACTUATED), OPEN AND CLOSE	
860	MAF	MTPGP01	221	GUN(POWDER ACTUATED), POSITION AND FIRE ONE BOLT OR STUD	
860	MAF	STPSI01	494	STUD, INSTALL WITH POWDER ACTUATED GUN	
861	MAF	MNFMA01	82	MORTAR, APPLY TO ONE END AND ONE SIDE OF BRICK	62
861	MAF	MNFMA02	244	MORTAR, APPLY ON THREE BRICK LENGTHS; FURROW AND CUT JOINT	
861	MAF	MNFMA03	28	MORTAR, APPLY TO ONE END OF BRICK	
861	MAF	MOHBOXX	VARIABLE	BRICK(FIRE), DIP IN ADHESIVE	
861	MAF	MOHBO01	169	BRICK, OBTAIN AND WET, PREPARATORY TO INSTALLATION	
861	MAF	MOHBPO1	280	BRICK(FIRE), PLACE AND TAP INTO POSITION	
861	MAF	MOHBS01	591	BED(MORTAR SETTING), SMOOTH PRIOR TO LEVELING, PER FOUR SQUARE FEET	
861	MAF	MOHBT01	475	BRICK(JAMB FIRE), TAP INTO POSITION ON OUTSIDE CORNER	
861	MAF	MOHBT02	673	BRICK, TAP INTO POSITION FOR TIE-IN	63
861	MAF	SOHB001	429	BAG(CEMENT), OBTAIN AND OPEN	
861	MAF	SOHBRO1	574	BACKING(PAPER), REMOVE FROM TILE FIELD, 13"x26"	
861	MAF	SOHGPO1	333	GROUT, POUR AND WORK INTO CRACKS OF FLOOR TILE, PER SQUARE FOOT	
861	MAF	SOHTPO1	417	TILE, POSITION AND LEVEL TO ADJOINING TILE	
861	MAF	MTLBB01	331	BRICK, BREAK WITH TROWEL TO FIT	
861	MAF	MTLBC01	660	BAG, CUT, CEMENT OR SIMILAR USING TROWEL	

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OCCUP- ATION	QUALITY	DWMSTOP ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION	PAGE
861	MAF	MTLBS01	357	BED(MORTAR SETTING),SCREED,PER TWO SQUARE FEET	63
861	MAF	MTLCB01	190	BRICK,CHIP OUT WITH CHISEL AND HAMMER,PER CUBIC INCH	64
861	MAF	MTLJC01	246	JOINT(MORTAR),CUT OFF,BOTTOM AND ONE END,THREE BRICKS,WITH TROWEL	
861	MAF	MTLJC02	117	JOINT(MORTAR),CUT OFF,BOTTOM AND ONE END,ONE BRICK,WITH TROWEL	
861	MAF	MTLJP01	208	JOINT(MORTAR),POINT UP HORIZONTAL AND VERTICAL 8"x16" BLOCK	
861	MAF	MTLJS01	195	JOINT(MORTAR),STRIKE,VERTICAL AND HORIZONTAL, ONE BLOCK,WITH TROWEL	
861	MAF	MTLTF01	132	TROWEL,FILL WITH MORTAR	
862	MAF	SEMP01	252	TCOL(REAMING),POSITION AND RETURN,TOLEDO 999 PIPE MACHINE OR SIMILAR	
862	MAF	MNFSIXX	VARIABLE	STAPLE,INSTALL IN PIPE COVER	
862	MAF	MOHCGXX	VARIABLE	COVER(PIPE),GET AND POSITION ON PIPE,LENGTH OF COVER-THREE FEET	65
862	MAF	MOHCO01	288	CLOTH,OBTAIN FROM ROLL	
862	MAF	MOHCS01	134	CLOTH,SMOOTH AFTER WRAPPING AROUND PIPE FITTING	
862	MAF	MOHFW01	310	FITTING,WRAP WITH WIRE(CHICKEN WIRE OR SIMILAR)	
862	MAF	MOHGI01	97	GASKET,INSERT BETWEEN FLANGE JOINTS TO TWO-INCH INSIDE DIAMETER	
862	MAF	MOHJA01	332	JOINT(FLANGE),ALIGN	
862	MAF	MOHJA02	171	JOINT(FLANGE),ALIGN WITH PIN	
862	MAF	MOHLO01	823	LAMPWICK,OBTAIN AND WRAP ON THREADS OF PIPE	
862	MAF	MOHPP01	264	PIPE,POSITION IN THREADING MACHINE AND REMOVE, TO FOUR-FOOT LENGTH	66
862	MAF	MOHPP02	442	PIPE,POSITION IN THREADING MACHINE AND REMOVE, 4-20 FEET IN LENGTH	
862	MAF	MOHPP03	359	PIPE,POSITION IN THREADING MACHINE CHUCK AND REMOVE,TO FOUR FOOT LENGTH	
862	MAF	MOHSA01	1757	SNAKE,ATTACH TO AND REMOVE FROM PIPE, PREPATORY TO LEAD POUR	
862	MAF	MOHSP01	331	STAND(PIPE),POSITION UNDER PIPE	
862	MAF	MOHTB01	167	TUBING,BEND TO MATCH FITTING	
862	MAF	MOHTU01	430	TUBING,UNROLL FROM COIL	67
862	MAF	MSUDP01	253	DIE(THREADING),POSITION TO PIPE AND RETRACT, TCLEDO MODEL 999 OR SIMILAR PIPE MACHINE	
862	MAF	MSUSA01	235	SPEED,ADJUST ON HEAVY DUTY PIPE MACHINE,THREE LEVERS	
862	MAF	MSUSC01	133	SIZE(DIE),CHANGE ON HEAVY DUTY PIPE MACHINE	
862	MAF	MSUWT01	418	WHEEL,TIGHTEN OR LOOSEN TO ADJUST REAR GUIDE CLAMPS,HEAVY DUTY PIPE MACHINE	

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OCCUP- ATION	QUALITY	DWMSTOP ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION	PAGE
862	MAF	SSUD101	500	DIE(THREADING),INSTALL AND REMOVE,PIPE THREADING MACHINE	67
862	MAF	MTFPP01	194	PIPE,POSITION AND ENGAGE THREADS(PIPE SUSPENDED ON HOIST)	
862	MAF	MTFTA01	270	TUBING,ASSEMBLE TO THREADED FITTINGS(BOTH ENDS OF TUBING)	
862	MAF	MTLCCXX	VARIABLE	COVER(PIPE),CUT WITH HACK SAW	68
862	MAF	MTLDB01	617	DIE,BACK OFF THREADING TOOL,HAND-HELD PIPE DIE	
862	MAA	MTLDP01	116	DIE,POSITION TO PIPE AND START FIRST THREAD,HAND-HELD PIPE DIE	
862	MAF	MTLJTXX	VARIABLE	JOINT(FLANGE),TIGHTEN OR LOOSEN,PRELIMINARY	
862	MAF	MTLPC01	3830	PIPE,CUT WITH PIPE CUTTER	
862	MAF	MTLTBXX	VARIABLE	TUBING,BEND WITH TUBING BENDER	
862	MAF	MTLTCXX	VARIABLE	TUBING,CUT OFF WITH HAND CUTTER	
862	MAF	STLTF01	1284	TUBING,FLARE END	69
862	MAF	STLTRO1	450	TUBING,REAM END WITH HAND REAMER	
862	MUF	MVSVO01	266	WISE(PIPE),OPEN OR CLOSE AND TIGHTEN	
863	MAF	MOHSP01	208	SHINGLE(ASBESTOS),POSITION TO WALL	
863	MAF	MOHSRO1	485	SHINGLE(BROKEN),REMOVE FROM WALL,ASBESTOS SHINGLE	
863	MAF	MTLSC01	146	SHINGLE,CUT WITH SHINGLE CUTTER,ASBESTOS SHINGLE	
863	MAF	MTLSPXX	VARIABLE	SHINGLE,PUNCH HOLE WITH MANUAL PUNCH,ASBESTOS SHINGLE	
864	MAF	SJPSC01	2233	SANDPAPER,CHANGE ON DRUM SANDER	70
864	MAF	MOHFM01	162	FELT,MOVE ASIDE FOR ADHESIVE APPLICATION	
864	MAF	MOHFM02	263	FELT,MOVE INTO POSITION AFTER ADHESIVE APPLICATION	
864	MAF	MTPSL01	49	SANDER(DRUM),LOWER TO OR RAISE FROM FLOOR	
865	MAF	MNFP101	265	POINT(GLAZIER'S),INSTALL,PER POINT	
865	MAF	MOHGP01	98	GLASS,PLACE IN AND REMOVE FROM WINDOW FOR TRIAL INSTALLATION	
865	MAF	MOHGP02	138	GLASS,PLACE IN WINDOW FOR FINAL INSTALLATION	
866	MAF	MNFFN01	68	FELT(ROOFING),NAIL WITH ROOFING NAILS,PER NAIL	71
866	MAF	MOHAA01	439	ASPHALT,APPLY FLOOD COAT FROM POUR CAN	
866	MAF	MOHAE01	271	ASPHALT,EMPTY FROM BUCKET TO "LO-BOY" CART	
866	MAF	MOHAMXX	VARIABLE	ASPHALT,MOP ON SURFACE FROM WHEELED BUCKET	
866	MAF	MOHBF01	212	BUCKET,FILL WITH HOT ASPHALT FROM KETTLE	
866	MAF	MOHBR01	198	BUCKET(EMPTY),REMOVE FROM HOIST AND ATTACH FULL BUCKET AT GROUND LEVEL	
866	MAF	MTLFCXX	VARIABLE	FELT(ROOFING),CUT WITH KNIFE,PER LINEAR FOOT	

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OCCUP- ATION	QUALITY	DWMSTD ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION	PAGE
866	M4F	MTLGS01	261	GRAVEL,SPREAD WITH SHOVEL,PER SHOVELFUL	72



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OPERATION/ELEMENT DESCRIPTION	TMU VALUE	OCCUP- ATION	DWMSTDP ELEMENT	PAGE
ADHESIVE, APPLY TO FLOOR WITH SERRATED TROWEL, PER SQUARE FOOT	367	86X	MNFAA01	57
ALUMINUM, CUT WITH COMPOUND LEVER SNIPS, PER LINEAR INCH	VARIABLE	80X	STLACXX	0
ALUMINUM, CUT WITH DISC, ROUTER OR SIMILAR MOUNTED IN PNEUMATIC GUN, PROCESS TIME ONLY	1591	807	BPTAC01	25
ALUMINUM, CUT WITH SAW MOUNTED IN PNEUMATIC GUN STARTS-WITH SAW IN POSITION FOR CUTTING	1985	807	BPTAC02	25
ALUMINUM, SAW WITH JEWELER'S OR SKIN SAW, PER STRAIGHT LINEAR INCH	VARIABLE	807	STLASXX	32
AMPERAGE, ADJUST ON AC OR DC WELDING MACHINE	55	81X	MACAA01	33
ANCHOR (AND ROD ASSEMBLY), INSTALL IN HOLE AND EXPAND ANCHOR	2477	821	MJHAI01	47
ANCHOR, ASSEMBLE TO ROD	759	821	MTFAA01	50
ARC, BREAK AND MOVE TO NEXT WELD	193	810	MJHAB01	40
AREA (DAMAGED), CUT AWAY, ALUMINUM ALLOY TO .064 INCH THICKNESS, CIRCULAR AREA	VARIABLE	807	STLACXX	31
AREA (DAMAGED), CUT AWAY, ALUMINUM ALLOY TO .064 INCH THICKNESS, RECTANGULAR AREA	VARIABLE	807	STLCAXX	32
ARM (RAM), PULL TO FREE ANVIL, HYDRAULIC CONDUIT BENDER	109	82X	MTPA001	47
ARROW (RESCUE), INSTALL ON AIRCRAFT	26690	845	SPAAI01	55
ASPHALT, APPLY FLOOD COAT FROM POUR CAN	439	866	MJHAA01	71
ASPHALT, BREAK INTO PIECES WITH AXE, 100-POUND BUNDLE	350	853	STL4301	56
ASPHALT, EMPTY FROM BUCKET TO "LO-BOY" CART	271	866	MJHAE01	71
ASPHALT, MOP ON SURFACE FROM WHEELED BUCKET	VARIABLE	866	MJHAXXX	71
BACKING (PAPER), REMOVE FROM TILE FIELD, 13"X26"	574	861	SJHBR01	63
BAG (CEMENT), OBTAIN AND OPEN	429	861	SJHBO01	63
BAG, CUT, CEMENT OR SIMILAR USING TROWEL	660	861	MTLBC01	63
BANDING, CUT ON REEL OF WIRE, CABLE, OR SIMILAR	253	82X	MTLBC01	45
BAR (RADIUS), PLACE IN AND REMOVE FROM FLAME CUTTING MACHINE	145	816	MSUBP01	42
BED (MORTAR SETTING), SCREED, PER TWO SQUARE FEET	357	861	MTLBS01	63
BED (MORTAR SETTING), SMOOTH PRIOR TO LEVELING, PER FOUR SQUARE FEET	591	861	MJHBS01	62
BELT, CHANGE ON HAND HELD SANDING MACHINE	380	86X	SJPBC01	56
BELTING, REMOVE FROM LEAD SHEATHED CABLE	283	821	MJHBR01	49
BIT (AND BRACE), POSITION FOR DRILLING AND REMOVE	69	860	MTLBP01	60
BIT, INSTALL IN AND REMOVE FROM BRACE	234	860	MJPBI01	59
BIT, INSTALL IN AND REMOVE FROM HAND DRILL	173	860	MJPBI02	59
BIT, INSTALL IN AND REMOVE FROM SPIRAL DRILL	102	860	MJPBI03	59

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OPERATION/ELEMENT DESCRIPTION	TMU VALUE	OCCUP- ATION	DWMSTDP ELEMENT	PAGE
BLADE(GASKET CUTTER),ADJUST WITH CLAMPING SCREWS	411	86X	MTLBA01	58
BLOCK(SANDING),OBTAIN AND ATTACH SANDPAPER	112	86X	MJPB001	56
BLOWPIPE,LIGHT	120	811	MJPBL01	41
BLOWPIPE,POSITION TO METAL	45	811	MOHBP01	41
BOARD,HOLD FOR SAWING	75	860	MJPBH01	59
BOARD,SAW IN MITER BOX	VARIABLE	860	MTLBSXX	60
BOB(PLUMB),USE	538	86X	MTLBU01	58
BOLT(HI-LOK),INSTALL,POWER TOOLS,FIRST	473	807	STFB107	27
BOLT(HI-LOK),INSTALL,POWER TOOLS, ADDITIONAL	390	807	STFB108	27
BOLT(HI-LOK),INSTALL WITH MANUAL TOOLS	VARIABLE	807	STFB1XX	26
BOLT(HI-LOK),REMOVE,MANUAL TOOLS	VARIABLE	807	STFBRXX	27
BOLT(HI-TORQUE),INSTALL WITH PNEUMATIC TOOL, PER BOLT	VARIABLE	807	STFI8XX	29
BOLT(HI-TORQUE),INSTALL WITH HAND TOOLS IN UNOBSTRUCTED LOCATION	1069	807	STFI803	29
BOLT(HI-TORQUE),INSTALL WITH HAND TOOLS IN	1535	807	STFI804	29
BOLT(HUCK LOCK),SET WITH PULL TYPE GUN	50	807	BPTBS01	25
BOX(JUNCTION),INSTALL ON CONDUIT	914	82X	MJHB101	44
BRACE(BOTTOM),INSTALL IN METAL DOOR FRAME	876	86X	MNFB101	57
BRACE(CENTER),INSTALL IN METAL DOOR FRAME	380	86X	SNFB101	57
BRICK(FIRE),DIP IN ADHESIVE	VARIABLE	861	MUHB0XX	62
BRICK(FIRE),PLACE AND TAP INTO POSITION	280	861	MOHBP01	62
BRICK(JAMB FIRE),TAP INTO POSITION ON OUTSIDE CORNER	475	861	MOHBT01	62
BRICK,BREAK WITH TROWEL TO FIT	331	861	MTLBB01	63
BRICK,CHIP OUT WITH CHISEL AND HAMMER,PER CUBIC INCH	190	861	MTLCB01	64
BRICK,OBTAIN AND WET,PREPARATORY TO INSTALLATION	169	861	MOHB001	62
BRICK,TAP INTO POSITION FOR TIE-IN	673	861	MJHB02	63
BUCKET(EMPTY),REMOVE FROM HOIST AND ATTACH FULL BUCKET AT GROUND LEVEL	198	866	MJHBR01	71
BUCKET,FILL WITH HOT ASPHALT FROM KETTLE	212	866	MOHBF01	71
BULB,REPLACE WITH BULB CHANGER	VARIABLE	829	STLBRXX	54
CABLE(ELECTRODE HOLDER),CONNECT/DISCONNECT TO/FROM ARC WELDER	546	81X	MJPCC01	34
CABLE,INSERT END IN BOX CONNECTOR	132	824	MOHC101	52
CARTRIDGE(SEALANT),INSTALL IN AND REMOVE FROM GUN	1330	807	SJPC101	15
CARTRIDGE,ASSEMBLE TO STUD	111	860	MOHCA01	59

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CHISEL, CHANGE IN PNEUMATIC HAND CHIPPER	243	8XX	STPCC01	2
CHUTE(EXTENSION), ATTACH TO TRANSIT MIXER	462	844	SDHCA01	54
CLAMP(BAR), INSTALL AND REMOVE	VARIABLE	8XX	MCPCIXX	1
CLAMP(ECP), REMOVE FROM WIRE BUNDLE	1173	825	SCPCR01	52
CLAMP, INSTALL ON WIRE BUNDLE AND SECURE TO BULKHEAD	1781	825	SCPCI01	52
CLAMP, REMOVE FROM BULKHEAD	1026	825	SCPCR02	53
CLOTH, OBTAIN FROM ROLL	288	862	MOHCO01	65
CLOTH, SMOOTH AFTER WRAPPING AROUND PIPE FITTING	134	862	MOHCS01	65
COLLAR(HI-LOK BOLT), INSTALL, MANUAL TOOLS	VARIABLE	807	STFCIXX	27
COLLAR(HI-LOK BOLT), REMOVE, MANUAL TOOLS	VARIABLE	807	STFCRXX	28
COLLAR(RIVET), SPLIT WITH PNEUMATIC RIVET GUN, PROCESS TIME ONLY	153	807	BPTCS01	25
COLLAR, CUT FROM DRAW TYPE SHEAR PIN	VARIABLE	807	SNFCCXX	16
CONCRETE, CHIP WITH CHISEL AND HAMMER, SEVEN CUBIC INCHES	3699	844	MTLCC01	54
CONDUIT, BEND WITH HICKEY	VARIABLE	82X	STLCBXX	46
CONDUIT, BEND WITH HYDRAULIC BENDER	VARIABLE	82X	MTPCBXX	47
CONDUIT, PEAM END, ONE INCH DIAMETER, HAND REAMER	175	82X	MTLCR01	45
CONNECTOR(SOLDERLESS), INSTALL, SPLIT BOLT TYPE	1411	821	SNFCI01	49
CONTROLS(HEAT), ADJUST ON WELDING MACHINE	56	81X	MACCA01	33
COVER(PIPE), CUT WITH HACK SAW	VARIABLE	862	MTLCCXX	68
COVER(PIPE), GET AND POSITION ON PIPE, LENGTH OF COVER-THREE FEET	VARIABLE	862	MJHCGXX	65
COVER(RACEWAY BASE SECTION), INSTALL	586	82X	MDACI01	43
CUTOUT(FUSED), OPEN OR CLOSE ON POLE WITH DISCONNECT STICK	202	821	MJHCO01	49
CUTTER(GASKET), ADJUST TO SIZE FOR RING GASKET	176	86X	MTLCA01	58
CUTTER(GASKET), OBTAIN FROM CASE AND PUT AWAY	256	86X	MOHCO01	57
CUTTER(GASKET), POSITION TO BOARD AND REMOVE	173	86X	MTLCP01	58
CYCLE DIALS(SPOT WELDING MACHINE), ADJUST	187	81X	MSUCA01	38
DENT, REMOVE FROM ALUMINUM TO .064 INCH THICKNESS, PER SQUARE INCH	VARIABLE	807	STLDRXX	32
DIE(THREADING), INSTALL AND REMOVE, PIPE THREADING MACHINE	500	862	SSUDI01	67
DIE(THREADING), POSITION TO PIPE AND RETRACT, TOLEDO MODEL 999 OR SIMILAR PIPE MACHINE	253	862	MSJDP01	67
DIE, BACK OFF THREADING TOOL, HAND-HELD PIPE DIE	617	862	MTLDB01	63
DIE, CHANGE IN STOCK, HAND THREADING DIE	211	8XX	MJPCD01	1
DIE, INSTALL IN AND REMOVE FROM DIE STOCK, TWO SETSCREWS SECURING	802	8XX	SJPD101	1

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DIE, POSITION TO PIPE AND START FIRST THREAD, HAND-HELD PIPE DIE	116	862	MTLDP01	68
DIMPLE(COLD), FORM WITH HAND DIMPLER	VARIABLE	800	STLDFXX	12
DIMPLE MACHINE, SET UP(COLD)	3359	800	SSUDS01	11
DIVIDERS, USE TO SCRIBE 90-DEGREE ARC	152	809	MTLOU01	33
DOUBLER(OR FILLER), FABRICATE, FLAT CIRCULAR	VARIABLE	807	SFADFXX	13
DRILL(SPIRAL), POSITION TO MARK AND REMOVE	37	860	MTLDP01	60
ELECTRODE(HELI-ARC WELDING), GRIND	221	810	MJPEG01	39
ELECTRODE(HELI-ARC WELDING), CHANGE	VARIABLE	810	SJPECXX	39
ELECTRODE(IONTUNGSTEN), CHANGE IN TORCH	350	81X	MJPEC01	35
ELECTRODE, POSITION AND STRIKE ARC	53	810	MNFEP01	40
EQUIPMENT, RAISE OR LOWER ON POLE WITH HANDLINE	359	821	MUHER01	50
FASTENER(ANCHORED), INSTALL MISSING FLOATING OR CHANNEL NUT ONLY, ALL TYPES, FIRST PIECE	497	807	SNFFI01	16
FASTENER(ANCHORED), INSTALL MISSING FLOATING OR CHANNEL NUT ONLY, ALL TYPES, ADDITIONAL PIECE	454	807	SNFFI02	16
FASTENER(ANCHORED), INSTALL CAMLOC OR AIRLOC RECEPTACLE, OR DZUS SPRING, 1-MAN OPERATION, FIRST PIECE	3610	807	SNFFI03	17
FASTENER(ANCHORED), INSTALL CAMLOC OR AIRLOC RECEPTACLE, OR DZUS SPRING, 1-MAN OPERATION, ADDITIONAL PIECE	1840	807	SNFFI04	17
FASTENER(ANCHORED), INSTALL CAMLOC OR AIRLOC RECEPTACLE, OR DZUS SPRING, 2-MAN OPERATION, FIRST PIECE	5770	807	SNFFI05	17
FASTENER(ANCHORED), INSTALL CAMLOC OR AIRLOC RECEPTACLE, OR DZUS SPRING, 2-MAN OPERATION, ADDITIONAL	3250	807	SNFFI06	18
FASTENER(ANCHORED), INSTALL CHANNEL NUT ASSEMBLY WITH BLIND RIVETS, FIRST OR SINGLE THREE-NUT LENGTH	18850	807	SNFFI07	18
FASTENER(ANCHORED), INSTALL CHANNEL NUT ASSEMBLY WITH BLIND RIVETS, EACH ADDITIONAL THREE-NUT LENGTH	4530	807	SNFFI08	19
FASTENER(ANCHORED), INSTALL CHANNEL NUT ASSEMBLY TO EXISTING HOLES WITH BLIND RIVETS, FIRST OR SINGLE THREE-NUT LENGTH	14970	807	SNFFI09	18
FASTENER(ANCHORED), INSTALL CHANNEL NUT ASSEMBLY TO EXISTING HOLES WITH BLIND RIVETS, EACH ADDITIONAL THREE-NUT LENGTH	2880	807	SNFFI10	18
FASTENER(ANCHORED), INSTALL NUT PLATE, 1-MAN OPERATION, ALL TYPES, FIRST PIECE	5390	807	SNFFI11	19
FASTENER(ANCHORED), INSTALL NUT PLATE, 1-MAN OPERATION, ALL TYPES, ADDITIONAL	3180	807	SNFFI12	19
FASTENER(ANCHORED), INSTALL DILL NUT WITH TOOL, FIRST PIECE	883	807	STFFI01	28
FASTENER(ANCHORED), INSTALL DILL NUT WITH TOOL, ADDITIONAL PIECE	730	807	STFFI02	28

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FASTENER(ANCHORED),INSTALL RIV-NUT,FIRST PIECE	610	807	STFFI03	28
FASTENER(ANCHORED),INSTALL RIV-NUT,ADDITIONAL	550	807	STFFI04	29
FASTENER(ANCHORED),PREPARE HOLE AND INSTALL	VARIABLE	807	SNFFPXX	20
FASTENER(ANCHORED),REMOVE WORN OR STRIPPED FLOATING OR CHANNEL NUT ONLY	VARIABLE	807	SNFRFX	24
FASTENER(ANCHORED),REMOVE DILL NUT	VARIABLE	807	STFFRXX	29
FASTENER(ANCHORED),REPLACE	VARIABLE	807	SNFFRXX	21
FASTENER(BLIND),REMOVE,DEUTSCH DRIVE PIN RIVET	VARIABLE	800	SNFFRXX	8
FASTENER(CAMLOC),LOOSEN	VARIABLE	80X	MNFFLXX	3
FASTENER(CAMLOC),TIGHTEN	VARIABLE	80X	MNFFTX	3
FASTENER(HIGH STRENGTH),INSTALL	VARIABLE	80X	SNFFIX	4
FASTENER(TURNLOCK),SEAT AND TIGHTEN	VARIABLE	80X	SNFFSXX	5
FASTENER(TURNLOCK),UNLOCK	VARIABLE	80X	SNFFUXX	5
FASTENERS(HIGH STRENGTH),REPLACE	VARIABLE	80X	SNFFRXX	5
FASTNER(ANCHORED),INSTALL RIV-NUT,MANUAL MOTIONS ONLY	VARIABLE	807	MTFFIX	26
FEED(FLAME CUTTING MACHINE),ENGAGE TO START AND TURN OFF	78	816	MACFE01	41
FELT(ROOFING),CUT WITH KNIFE,PER LINEAR FOOT	VARIABLE	866	MTLFCXX	71
FELT(ROOFING),NAIL WITH ROOFING NAILS,PER NAIL	68	866	MNFFN01	71
FELT(ROOFING),UNROLL 15 FEET	352	86X	MJHFM01	57
FELT,MOVE ASIDE FOR ADHESIVE APPLICATION	162	864	MJHFM01	70
FELT,MOVE INTO POSITION AFTER ADHESIVE APPLICATION	263	864	MJHFM02	70
FILLER(OR DOUBLER),FABRICATE,FLAT RECTANGULAR, TO .064 INCH THICK	VARIABLE	807	SFAFFXX	14
FILLER,REMOVE AND CUT,LEAD SHEATHED CABLE	95	821	MJHFR01	50
FINDER(HOLE),USE,LEAF TYPE	VARIABLE	80X	MTLFUXX	6
FISHTAPE(ELECTRICAL),UNWRAP FROM AND WRAP ON REEL,PER FOOT	VARIABLE	82X	MJPFUXX	43
FISHTAPE(ELECTRICAL),USE,FEED INTO CONDUIT	68	82X	MTLFU01	45
FISHTAPE(ELECTRICAL),USE,DISENGAGE TWO TAPES	48	82X	MTLFU02	45
FITTING,WRAP WITH WIRE(CHICKEN WIRE OR SIMILAR)	310	862	MJHFW01	65
FLAME,ADJUST ON HAND TORCH	94	81X	MJPPA01	35
FRAME(AND ANCHORS),ADJUST IN OPENING,METAL DOOR FRAME	296	86X	SJHAF01	58
FRAME(DOOR),CHECK FOR VERTICAL ALIGNMENT WITH LEVEL	1041	86X	SITFC01	56
FRAME(DOOR),MEASURE AND CENTER IN OPENING	922	86X	MITFM01	56
FRAME(METAL DOOR),ASSEMBLE	1613	86X	SJHFA01	58

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FUSE(ELECTRICAL),INSTALL	VARIABLE	829	MJHFIXA	53
GAP(DIE),ADJUST(DIMPLING MACHINE-COLD)	1121	800	SSUGA01	12
GAS,TURN ON,LIGHT,AND TURN OFF,GAS BURNER FOR HEATING SOLDERING IRON OR SIMILAR	130	8XX	MJPGT01	1
GASKET,INSERT BETWEEN FLANGE JOINTS TO TWO-INCH INSIDE DIAMETER	97	862	MJHGI01	65
GASKET,REMOVE FROM CUTTING BOARD AND ASIDE SCRAP	245	86X	MDHGR01	58
GLASS,PLACE IN AND REMOVE FROM WINDOW FOR TRIAL INSTALLATION	98	865	MDHGP01	70
GLASS,PLACE IN WINDOW FOR FINAL INSTALLATION	138	865	MJHGP02	70
GOGGLES(BURNING),PUT ON AND REMOVE	110	81X	MJPGP01	35
GRAVEL,SPREAD WITH SHOVEL,PER SHOVELFUL	261	866	MTLGS01	72
GROMMET(AND STUD),INSTALL,OZLS FASTENER,USING PNEUMATIC FLOOR DIMPLER	VARIABLE	807	SVFIGXX	22
GROMMET(AND STUD),REMOVE,OZLS FASTENER,MANUAL MOTIONS ONLY	VARIABLE	807	MVFGRX	15
GROMMET(CAMLOC),INSTALL WITH SNAP RING	VARIABLE	807	SVFIGXX	21
GROMMET(CAMLOC),REMOVE,SECURED WITH SNAP RING	VARIABLE	807	SNFGRX	21
GROUT,POUR AND WORK INTO CRACKS OF FLOOR TILE, PER SQUARE FOOT	333	861	SJHGP01	63
GUN(CAULKING),LOAD WITH CARTRIDGE	125	86X	MTLGL01	58
GUN(POWDER ACTUATED),OPEN AND CLOSE	99	860	MTPG001	61
GUN(POWDER ACTUATED),POSITION AND FIRE ONE BOLT OR STUD	221	860	MTPGP01	61
GUN(RIVET),SET UP,CHANGE RIVET SET	173	800	SJPGS02	7
GUN(RIVET),SET UP,INITIAL	424	800	SJPGS01	7
HAMMER(PNEUMATIC),POSITION FOR DRILLING AND REMOVE AFTER DRILLING	272	844	MTPHP01	54
HANDLES(GUIDE),EXTEND OR RETRACT,CONCRETE SAW	273	844	MTPHE01	54
HICKEY,REPOSITION ON CONDUIT	134	82X	MTLHR01	45
HOLE(HIGH PRESSURE TIP),CLEAN	62	811	MCLHC02	41
HOLE,CUT IN ALUMINUM TO .064 INCH THICKNESS, RECTANGULAR ACCESS HOLE	VARIABLE	807	SFACHXX	13
HOLE,CUT IN ALUMINUM TO .064 INCH THICKNESS, CIRCULAR ACCESS HOLE	VARIABLE	807	SFAHCXX	14
HOLE,CUT IN CARDBOARD CONTAINER WITH KNIFE	85	82X	MTLHC01	45
HOLE,DIMPLE(COLD AND HOT)	TABLE	800	TEMHOXX	7
HOLE,DRILL WITH SPIRAL DRILL,PER STROKE	23	860	MTLH001	60
HOLE,DRILL WITH SPIRAL DRILL(ONE INCH HOLE)	VARIABLE	860	STLDHXX	61
HOLE,GAUGE TO DETERMINE RIVET LENGTH	178	80X	MGMHG01	2
HOLE,PUNCH WITH PORTABLE PUNCH	VARIABLE	8XX	MTLHPXX	2

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HOLE,REAM WITH HAND REAMER	VARIABLE	80X	MTLHRXX	6
HOLES(TORCH TIP),CLEAN	751	811	MCLHC01	40
HOOD(RUBBER INSULATOR),INSTALL ON ENERGIZED LINE	257	821	MOHHI01	50
HOSE(RUBBER),PLACE ON ENERGIZED LINE	324	821	MOHHP01	50
HOSES(OXYGEN AND ACETYLENE),ATTACH AND REMOVE TO/FROM TORCH	954	81X	MJPHA01	35
INSIGNIA(NATIONAL-STAR),INSTALL ON AIRCRAFT	80610	845	SPAII01	55
JACK/PLUG(INTERPHONE),INSTALL	7306	823	SWHJI01	51
JACK/PLUG(INTERPHONE),REMOVE	2376	823	SWHJR01	51
JACKET(WELDERS),PUT ON AND TAKE OFF	435	81X	MJPJP01	35
JO-BOLT,INSTALL,OBSTRUCTED,USE JO-BOLT SET	631	807	STFJI03	30
JO-BOLT,INSTALL WITH ARD JO-BOLT GUN MODEL 7 OR SIMILAR	VARIABLE	807	STFJIXX	30
JO-BOLT,INSTALL WITH HAND TOOL	VARIABLE	807	STFIJXX	30
JO-BOLT,INSTALL WITH PNEUMATIC TOOL	49	807	BPTJI01	25
JO-BOLT,REMOVE	VARIABLE	807	STFJRXX	30
JO-BOLT,REMOVE	VARIABLE	807	STFRJXX	31
JOINT(FLANGE),ALIGN	332	862	MOHJA01	65
JOINT(FLANGE),ALIGN WITH PIN	171	862	MOHJA02	65
JOINT(FLANGE),TIGHTEN OR LOOSEN,PRELIMINARY	VARIABLE	862	MTLJTXX	68
JOINT(MORTAR),CUT OFF,BOTTOM AND ONE END,THREE BRICKS,WITH TROWEL	246	861	MTLJC01	64
JOINT(MORTAR),CUT OFF,BOTTOM AND ONE END,ONE BRICK,WITH TROWEL	117	861	MTLJC02	64
JOINT(MORTAR),POINT UP HORIZONTAL AND VERTICAL 8"x16" BLOCK	208	861	MTLJP01	64
JOINT(MORTAR),STRIKE,VERTICAL AND HORIZONTAL, ONE BLOCK,WITH TROWEL	195	861	MTLJS01	64
KNOB,OPEN ON ACETYLENE TORCH TIP	93	81X	MACKO01	33
LADDER(EXTENSION),MOVE,WEIGHT TO 60 POUNDS	347	8XX	MOHLM01	2
LADDER(EXTENSION),MOVE,LADDER 20 FEET LONG	440	8XX	MOHLM02	2
LAMINATION,REMOVE ONE LAYER FROM SHIMSTOCK,TO TWO INCHES WIDE AND SIX INCHES LONG	VARIABLE	80X	STLLRXX	6
LAMP(FLUORESCENT),INSTALL IN LAMP HOLDER	103	824	MOALI01	51
LAMPWICK,ORTAIN AND WRAP ON THREADS OF PIPE	823	862	MJHLO01	65
LEADS(LAMP SOCKET),INSERT THROUGH GROMMET	524	824	SOALI01	52
LINE,INSCRIBE,CIRCULAR,USING FINGER AS A GUIDE	TABLE	8XX	TLOLIXX	2
LINE,MARK WITH CHALK LINE	VARIABLE	8XX	MLOLMXX	1
LINE,STRIKE WITH CHALK LINE	281	860	MTLLS01	60

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LOCK(WEDGE), INSTALL	VARIABLE	80X	SVFLIXX	5
LOCK(WEDGE), REMOVE WITH PNEUMATIC TOOL	231	80X	SNFLR01	6
LOOP, PLACE ON TERMINAL AND CLOSE WITH PLIERS	96	82X	MTLLP01	46
LUG(TERMINAL), CONNECT TO SWITCH	64	82X	MDALC01	43
LUG(TERMINAL), CRIMP TO WIRE	83	82X	MTLLC01	46
MACHINE(ARC WELDING), SET UP	303	810	MJPMS01	39
MACHINE(FLAME CUTTING), PLACE ON RING	91	816	MSUMP01	42
MACHINE(HOT DIMPLE), SET UP	4624	800	SSUMS01	12
MACHINE(WELDING), SET UP, SCIACKY CR SIMILAR AND TEST WELD THREE SPOTS	3995	81X	SSUMS01	38
MACHINE(WELDING), SET UP, SCIACKY OR SIMILAR AND TEST WELD ONE TWO INCH SEAM	3461	81X	SSUMS02	39
MACHINE(WELDING), TURN ON OR OFF	74	81X	MACMT01	33
METAL, CUT WITH SNIPS, PER INCH, SHEET METAL	VARIABLE	80X	STLMCXX	7
METAL, HEAT WITH DIMPLING DIE	VARIABLE	800	BPTMHXX	11
MIX(HOT BITUMINOUS), SPREAD WITH RAKE, PER SQUARE YARD	776	853	MTLMS01	55
MIXTURE(DRY AGGREGATE), DUMP INTO MIXER FROM HOPPER	593	844	MACMD01	54
MORTAR, APPLY ON THREE BRICK LENGTHS; FURROW AND CUT JOINT	244	861	MNFMA02	62
MORTAR, APPLY TO ONE END AND ONE SIDE OF BRICK	82	861	MNFMA01	62
MORTAR, APPLY TO ONE END OF BRICK	28	861	MNFMA03	62
NAIL, POSITION AND START TO DRIVE WITH HAMMER	59	860	MTLNP01	60
NAIL, REMOVE WITH HAMMER	VARIABLE	860	STLNRXX	61
NAIL, START IN BOARD	VARIABLE	860	MTLNSXX	61
NAILS, GET FROM BOX	65	860	MOHNG01	59
NUT(ANCHOR), INSTALL, DRILL NEW HOLES USING ANCHOR NUT AS DRILL GUIDE, FIRST NUT, EASY ACCESS	4502	807	SVFNI03	23
NUT(ANCHOR), INSTALL, EASY ACCESS, DRILL NEW HOLES USING ANCHOR NUT AS DRILL GUIDE, EACH ADDITIONAL NUT	2863	807	SVFNI04	23
NUT(ANCHOR), INSTALL IN EXISTING HOLES, EASY ACCESS	VARIABLE	807	SVFNIXX	22
NUT(ANCHOR), INSTALL WITH TWO RIVETS, FIRST NUT (USE DRILL JIG TO LOCATE ATTACH HOLES)	4039	807	SVFNI05	23
NUT(ANCHOR), INSTALL WITH TWO RIVETS, ADDITIONAL NUT(USE DRILL JIG TO LOCATE ATTACH HOLES)	1448	807	SVFNI06	23
NUT(CHANNEL), INSTALL	VARIABLE	807	SVFINXX	22
OBJECT, RAISE AND LOWER WITH MANUALLY OPERATED HOIST, AVERAGE 28-FOOT HEIGHT	886	86X	MMHOR01	57
OILER, PREPARE FOR FILLING	187	82X	MJPOP01	43



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PAINT, SPRAY ON AIRCRAFT SURFACE, PER TEN SQUARE FEET	VARIABLE	845	MPAPSXX	55
PANEL (ELECTRICAL METER), INSTALL	72	824	MDAPI01	51
PANEL (ELECTRICAL METER), REMOVE	42	824	MDAPR01	51
PAPER, REMOVE FROM CONDUCTOR AFTER OUTER INSULATION HAS BEEN STRIPPED	90	82X	MOHPR01	44
PART, CHECK FOR WARPAGE WITH 12-INCH SCALE	143	81X	MGMPC01	34
PARTITION (ASSEMBLED), LIFT FROM FLOOR AND POSITION TO MARKS	704	860	MOHPL01	59
PIECES, POSITION TO ASSEMBLE PITTSBURGH LOCK SEAM	VARIABLE	804	MOHPPXX	12
PIKE, DRIVE INTO POLE, APPROXIMATELY 20 FEET ABOVE GROUND	157	821	MTLPD01	50
PIN (DRAW TYPE SHEAR), INSTALL	458	807	SVFPI01	24
PIPE, CUT WITH PIPE CUTTER	3830	862	MTLPC01	68
PIPE, POSITION AND ENGAGE THREADS (PIPE SUSPENDED ON HOIST)	194	862	MTFPP01	67
PIPE, POSITION IN THREADING MACHINE AND REMOVE, TO FOUR-FOOT LENGTH	264	862	MOHPP01	66
PIPE, POSITION IN THREADING MACHINE AND REMOVE, 4-20 FEET IN LENGTH	442	862	MOHPP02	66
PIPE, POSITION IN THREADING MACHINE CHUCK AND REMOVE, TO FOUR FOOT LENGTH	359	862	MOHPP03	66
PLANE (HAND), ADJUST	192	860	MTLPA01	61
PLATE (FOUNDATION), MAKE LEVEL WITH SHIMS	277	860	MOHP401	50
PLATE (FOUNDATION), POSITION TO BOLTS SET IN CONCRETE	441	860	MOHPP01	50
PLUG (COAXIAL), CUT FROM CABLE	VARIABLE	82X	STLPCXX	47
PLUG/RECEPTACLE, PLACE IN PLASTIC BAG	1393	82X	SJHPP01	45
POINT (GLAZIER'S), INSTALL, PER POINT	265	865	MVFPI01	70
POLARITY (ARC WELDING MACHINE), CHANGE	293	810	MJPPC01	39
POLE, CLIMB FROM LOWER TO UPPER CROSSARM	686	821	MBMCP02	48
POLE, CLIMB TO AND DESCEND FROM LOWER CROSSARM	5843	821	SBMPC01	49
POLE, CLIMB TO LOWER CROSSARM, APPROXIMATELY 30 FEET	1513	821	MBMCP01	48
POLE, ROTATE WITH CANT HOOK	415	821	MTLPR01	50
POSITION, CHANGE HORIZONTALLY ON POLE	402	821	MBMPC01	48
POUCH (TOOL), PUT AROUND WAIST WITH STRAP AND REMOVE	363	8XX	SJPPP01	1
PRESSURE, PUMP IN BLOW TORCH TANK	280	814	SJPPP01	41
RATCHET, REVERSE ON THREADING TOOL	54	8XX	MTLRR01	2
REGULATOR, READJUST, TWO TANKS	83	81X	MJPRR01	35

DEFENSE WORK MEASUREMENT STANDARD TIME DATA  
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OPERATION/ELEMENT DESCRIPTION	TMO VALUE	OCCUP- ATION	DWMSTD ELEMENT	PAGE
RING(FLAME CUTTING MACHINE),POSITION ON PLATE TO BURN CIRCLES	128	816	MSURP01	42
RIVET(DEUTSCH DRIVE PIN),INSTALL,ALL SIZES	VARIABLE	800	SNFIRXX	8
RIVET(HI-SHEAR),INSTALL,FIRST	703	800	SNFRI09	10
RIVET(HI-SHEAR),INSTALL,ADDITIONAL	466	800	SNFRI10	10
RIVET,CUT PROTRUDING HEAD WITH RIVET GUN AND CHISEL	VARIABLE	800	SNFCRXX	8
RIVET,DRILL AND REMOVE,COUNTERSUNK OR UNIVERSAL HEAD	VARIABLE	800	SNFROXX	9
RIVET,DRIVE OUT WITH HAMMER AND PIN PUNCH,2- MAN OPERATION	VARIABLE	800	SNFDRXX	8
RIVET,INSPECT WITH LIGHT	226	800	SITRI01	7
RIVET,INSPECT WITH LIGHT AND MIRROR	370	800	SITRI02	7
RIVET,INSTALL	VARIABLE	800	SNFRIXX	9
RIVET,INSTALL,BLIND,PULLED,ALL TYPES,FIRST RIVET	525	800	SNFRI11	10
RIVET,INSTALL,BLIND,PULLED,ALL TYPES,EACH ADDITIONAL RIVET	445	800	SNFRI12	10
RIVET,INSTALL,COLLARED FASTENER,3/16-1/4 INCH DIAMETER,FIRST RIVET	683	800	SNFRI07	9
RIVET,INSTALL,COLLARED FASTENER 3/16-1/4 INCH DIAMETER,ADDITIONAL RIVET	335	800	SNFRI08	9
RIVET,KNOCK OUT,COLLARED FASTENER,ALUMINUM	VARIABLE	800	SNFRKXX	10
RIVET,REMOVE,SOLID,DRIVEN	VARIABLE	800	SNFRXX	11
RIVET,SET WITH PNEUMATIC GUN,PROCESS TIME ONLY	257	800	BPTRS01	11
ROD(WELDING),CHANGE IN ELECTRODE HOLDER	VARIABLE	81X	MJPRCXX	35
ROD(WELDING),CHANGE IN ELECTRODE HOLDER	354	810	SJPRC01	39
RULE,USE TO MEASURE	317	8XX	MGMRU01	1
SANDER(DRUM),LOWER TO OR RAISE FROM FLOOR	49	864	MTPSL01	70
SANDPAPER,CHANGE ON DRUM SANDER	2233	864	SJPSC01	70
SCAFFOLD(PORTABLE),LOCK AND UNLOCK WHEELS	992	86X	MACSL01	56
SCALE,KNOCK FROM WELD WITH HAMMER AND BRUSH	VARIABLE	81X	MCLSKXX	34
SEALANT,APPLY WITH PNEUMATIC SEALANT GUN	VARIABLE	807	SSRSAXX	26
SHFATHING(LEAD CABLE),CLEAN BY SCRAPING	335	821	MCLSC01	49
SHIELC(WELDING),PUT ON AND REMOVE	173	81X	MJPSP01	35
SHIELD(WELDING),RAISE AND LOWER	76	81X	MJPSP01	36
SHINGLE(ASBESTOS),POSITION TO WALL	208	863	MOMSP01	69
SHINGLE(BROKEN),REMOVE FROM WALL,ASBESTOS SHINGLE	485	863	MOMSR01	69
SHINGLE,CUT WITH SHINGLE CUTTER,ASBESTOS SHINGLE	146	863	MTLSC01	69

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OPERATION/ELEMENT DESCRIPTION	TMU VALUE	OCCUP- ATION	DWMSTOP ELEMENT	PAGE
SHINGLE,PUNCH HOLE WITH MANUAL PUNCH,ASBESTOS SHINGLE	VARIABLE	863	MTLSPXX	69
SIZE(DIE),CHANGE ON HEAVY DUTY PIPE MACHINE	133	862	MSUSC01	67
SLAG, CHIP WITH CHIPPING HAMMER,CHISEL,AND BRUSH	VARIABLE	81X	MCLSCXX	33
SLAG,REMOVE WITH CHIPPING HAMMER	VARIABLE	81X	MCLSRXX	34
SLEEVES(RUBBER LINEMAN'S),PUT ON AND TAKE OFF	546	821	MJPSP01	49
SNAKE,ATTACH TO AND REMOVE FROM PIPE, PREPATORY TO LEAD POUR	1757	862	MOHSA01	66
SOCKET(LAMP),INSERT IN REFLECTOR FITTING	65	82X	MOASIO1	43
SOLDER,APPLY TO SEAM OR JOINT,SHEET METAL	VARIABLE	814	MNFSAXX	41
SPATTER,SCRAPE PER INCH OF WELD	30	81X	MCLSS01	34
SPEED,ADJUST ON HEAVY DUTY PIPE MACHINE,THREE LEVERS	235	862	MSUSA01	67
SPEED,ADJUST ON SELF-PROPELLING UNIT OF CONCRETE SAW	177	844	MTPSA01	54
SPEED DIAL(FLAME CUTTING MACHINE),ADJUST	65	816	MSUSA01	42
SPLICE(CENTER),MAKE	120	82X	MWHSM01	47
SPLICE(COAXIAL CABLE),INSTALL TO SHIELDED WIRE	1076	82X	SWHSIO1	48
SPLICE(TWO WIRES),MAKE WITH STAKE-ON PLIERS	2367	82X	SWHSM01	48
SPLICE,BEND PARALLEL TO CONDUCTOR WITH PLIERS	95	82X	MTLSB01	46
SPLICE,FORM WITH PLIERS,PIGTAIL SPLICE	413	82X	MTLSF01	46
SPLICE,REMOVE	151	82X	SWHSR01	48
SPOT(OR SEAM),WELD	VARIABLE	81X	SNFWSXX	37
SPOT(OR SEAM),WELD ON SCIAKY STATIONARY WELDING MACHINE	VARIABLE	81X	SNFWSXX	37
SPOT,WELD	68	81X	BPTSW01	38
STAND(PIPE),POSITION UNDER PIPE	331	862	MOHSP01	66
STAPLE,INSTALL IN PIPE COVER	VARIABLE	862	MNFSIXX	64
STARTER(FLUORESCENT),REPLACE IN FIXTURE	144	829	MOHSR01	53
STEP(POLE),DRIVE INTO POLE WITH HAMMER	609	821	STLSD01	51
STUD(AIRLOC),INSTALL,PER STUD	VARIABLE	807	SNFISXX	22
STUD(AIRLOC),REMOVE PIN WITH AIRLOC TOOL	VARIABLE	807	SNFRSXX	24
STUD(CAMLOC),INSTALL WITH CAMLOC PLIERS,NO RETAINING WASHER	VARIABLE	807	SNFSIXX	24
STUD(CAMLOC),REMOVE,NO RETAINING WASHER	VARIABLE	807	SNFSRXX	24
STUD(STRESS HEAD CAMLOC),INSTALL,PER STUD	318	807	SNFSIO3	24
STUD,INSTALL WITH POWDER ACTUATED GUN	494	860	STPST01	61
SWITCH,TURN OFF OR ON,BRANCH LIGHTING CIRCUIT	161	82X	MJPST01	43
TANK,PUT ON HAND TRUCK	355	81X	MOHTP01	38

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OPERATION/ELEMENT DESCRIPTION	TMU VALUE	OCCUP- ATION	DWMSTOP ELEMENT	PAGE
TANK, REMOVE FROM HAND TRUCK	126	81X	MOHTR01	38
TAPE, APPLY TO WIRE SPLICE	443	82X	SNFTA01	44
TENSION, RELEASE ON OXY-ACETYLENE WELDING REGULATOR	119	81X	MJPTR01	36
THREAD, CUT IN CONDUIT	343	82X	MTLTC01	46
THYRATON CONTROLS (SPOT WELDING MACHINE), SET	129	813	MSUTS01	41
TIE (SPOT), REMOVE	157	82X	SNFTR01	44
TILE, POSITION AND LEVEL TO ADJOINING TILE	417	861	SCHTP01	63
TIP (ELECTRODE), DETACH FROM SPOTWELDER	104	81X	MJPTD02	36
TIP (ELECTRODE), GRIND	VARIABLE	81X	SJPTGXX	37
TIP (ELECTRODE), INSTALL ON SPOTWELDER	121	81X	MJPTI01	36
TIP (ELECTRODE-GAS), REPLACE	635	811	MJPTR01	41
TIP (ELECTRODE-WELDER), DRESS	728	81X	MCLTD01	34
TIP (OXY-ACETYLENE TORCH), CHANGE WITH WRENCH	669	81X	SJPTC01	36
TIP (TORCH), DETACH BY HAND	251	81X	MJPTD01	36
TIP, CLEAN WITH EMERY CLOTH WRAPPED AROUND FILE, SPOT WELDER	224	81X	MCLTC03	34
TIP, CLEAN WITH SANDPAPER, WELDING GUN	VARIABLE	81X	MCLTCXX	34
TOOL (AIRLOC), SET UP FOR INSTALLATION OR REMOVAL OF PIN IN AIRLOC STUD	1638	80X	SJPTS01	3
TOOL (PNEUMATIC SQUEEZE), SET UP AND ASIDE, FOR INSTALLATION OF PIN IN AIRLOC STUD	353	80X	SJPTS02	3
TOOL (REAMING), POSITION AND RETURN, TOLEDO 999 PIPE MACHINE OR SIMILAR	252	862	SEMTPO1	64
TOOL, CONNECT TO AND DISCONNECT FROM EXTENSION CORD LYING ON FLOOR	578	86X	MTPTC01	59
TOOL, INSERT AND REMOVE, AIR HAMMER	119	81X	MTPTI01	39
TOOLS, PREPARE FOR JO-BOLT INSTALLATION	922	807	MJPTP01	15
TORCH (ACETYLENE), LIGHT WITH FRICTION TYPE IGNITER	67	81X	MJPTL01	36
TORCH (OXY-ACETYLENE), LIGHT AND TURN OFF	349	81X	SJPTL01	37
TORCH (OXY-ACETYLENE-CUTTING), ADJUST FOR CUTTING BEVEL	152	816	MJPTA01	42
TORCH ARM (FLAME CUTTING MACHINE), POSITION FOR BURNING CIRCLES OR STRAIGHT LINES	103	816	MSUTP01	42
TRAMMEL, SET TO SCALE	VARIABLE	809	MJPTSXX	32
TRAMMEL, USE TO SCRIBE 90-DEGREE ARC, ONE OPERATOR, 36-INCH RADIUS	328	809	MTLTU01	33
TROWEL, FILL WITH MORTAR	132	861	MTLTF01	64
TUBING (ELECTRICAL METALLIC), BEND WITH MANUAL BENDER	VARIABLE	82X	STLTBXX	47
TUBING, ASSEMBLE TO THREADED FITTINGS (BOTH ENDS OF TUBING)	270	862	MTFTA01	67

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OPERATION/ELEMENT DESCRIPTION	TNU VALUE	OCCUP- ATION	DWMSTOP ELEMENT	PAGE
TUBING,BEND TO MATCH FITTING	167	862	MOHTB01	66
TUBING,BEND WITH TUBING BENDER	VARIABLE	862	MTLT8XX	68
TUBING,CUT OFF WITH HAND CUTTER	VARIABLE	862	MTLTCXX	68
TUBING,FLARE END	1284	862	STLTF01	69
TUBING,REAM END WITH HAND REAMER	450	862	STLTRO1	69
TUBING,UNROLL FROM COIL	430	862	MOHTU01	67
UNIT(SELF-PROPELLING),ENGAGE AND DISENGAGE, CONCRETE SAW	342	844	MTPUE01	55
VALVE(ACETYLENE AND OXYGEN),TURN OFF	69	81X	MACVT01	33
VALVE(OXY-ACETYLENE CYLINDER),TURN OFF	321	81X	MJPVT01	36
VALVES(BLOWPIPE OXYGEN AND ACETYLENE),OPEN AND CLOSE	VARIABLE	811	MACVOXX	40
WISE(PIPE),OPEN OR CLOSE AND TIGHTEN	266	862	MVSVO01	69
WASHER(SOLID),INSTALL ON CAMLOC STUD ASSEMBLY	274	807	SNFWI02	25
WASHER(SPLIT),INSTALL ON CAMLOC STUD ASSEMBLY	326	807	SNFWI01	24
WASHER(SPLIT),REMOVE FROM CAMLOC STUD,PER WASHER	140	807	SNFWR01	25
WEDGE,INSTALL TO HOLD DOOR FRAME IN PLACE	251	86X	SNFWI01	57
WEDGE,INSTALL TO RAISE AND LEVEL DOOR FRAME	458	86X	SNFWI02	57
WELD(INERT GAS-ARC),MAKE	VARIABLE	810	SNFWMXX	40
WELD(SPOT),ACCOMPLISH	VARIABLE	81X	SNFWAXX	37
WELD,ACCOMPLISH,ARC WELD,PER INCH	VARIABLE	810	MYFWAXX	40
WELDER(SPOT),PREPARE(ADJUST HEAT)	5206	81X	MJPWP01	36
WHEEL(FLAME CUTTING MACHINE),REMOVE	155	816	MSUWR01	42
WHEEL,TIGHTEN OR LOOSEN TO ADJUST REAR GUIDE CLAMPS,HEAVY DUTY PIPE MACHINE	418	862	MSUWT01	67
WIRE/WIRE BUNDLE,ROUTE IN AIRCRAFT	1596	825	SWHWRO1	53
WIRE,ALIGN FOR FORMING IN ELECTRICAL BOX	70	82X	MOHWA01	44
WIRE,BEND 90 DEGREES FOR FORMING IN ELECTRICAL BOX	VARIABLE	82X	MOHWBXX	45
WIRE,DISCONNECT FROM FISHTAPE AFTER PULLING	192	82X	MTLWD01	46
WIRE,INSERT THROUGH CLIP IN RACEWAY	50	824	MWHWI01	52
WIRE BUNDLE,CLAMP TO BULKHEAD	1274	825	SCPWC01	53
WIRE BUNDLE,COIL AND TIE	VARIABLE	82X	SNFWCXX	44
WIRE BUNDLE,TAPE AND TIE	1838	82X	SNFWT01	44
WIRE BUNDLE,TIE TO TOMBSTONE	1296	825	SWHWT01	53
WRAPPING(PAPER),REMOVE FROM COIL OF WIRE	1611	82X	MOHWRO1	45
WRAPPING(PAPER),REMOVE FROM 100-POUND BUNDLE OF ASPHALT	200	853	SCHWRO1	55

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OPERATION/ELEMENT DESCRIPTION	TMU VALUE	OCCUP- ATION	DWMSDP ELEMENT	PAGE
ACCOMPLISH SPOT WELD	VARIABLE	81X	SNFWAXX	37
ACCOMPLISH WELD.ARC WELD.PER INCH	VARIABLE	810	MNFWAXX	40
ADJUST AMPERAGE ON AC OR DC WELDING MACHINE	55	81X	MACAA01	33
ADJUST DIE GAP(DIMPLING MACHINE-COLD)	1121	800	SSUGA01	12
ADJUST FLAME CUTTING SPEED DIAL	65	816	MSUSA01	42
ADJUST FLAME ON HAND TORCH	94	81X	MJPFA01	35
ADJUST FRAME(AND ANCHRS)IN OPENING,METAL DOOR FRAME	256	86X	SOHAF01	58
ADJUST GASKET CUTTER BLADE WITH CLAMPING	411	86X	MTLBA01	58
ADJUST GASKET CUTTER TO SIZE FOR RING GASKET	176	86X	MTLCA01	58
ADJUST HAND PLANE	192	860	MTLPA01	61
ADJUST HEAT CONTROL ON WELDING MACHINE	56	81X	MACCA01	33
ADJUST OXY-ACETYLENE-CUTTING TORCH FOR CUTTING BEVEL	152	816	MJPTA01	42
ADJUST SPEED ON HEAVY DUTY PIPE MACHINE, THREE LEVERS	235	862	MSUSA01	67
ADJUST SPEED ON SELF-PROPELLING UNIT OF CONCRETE SAW	177	844	MTPSA01	54
ADJUST SPOT WELDING MACHINE CYCLE DIALS	187	81X	MSUCA01	38
ALIGN FLANGE JOINT	1757	862	MOHSA01	66
ALIGN FLANGE JOINT WITH PIN	171	862	MOHJA02	65
ALIGN WIRE FOR FORMING IN ELECTRICAL BOX	70	82X	MOHWA01	44
APPLY ADHESIVE TO FLOOR WITH SERRATED TROWEL PER SQUARE FOOT	367	86X	MNFAA01	57
APPLY ASPHALT FLCCO COAT FROM FOUR CAN	439	866	MOHAA01	71
APPLY MORTAR ON THREE BRICK LENGTHS; FURROW AND CUT JOINT	244	861	MNFMA02	62
APPLY MORTAR TO ONE END OF BRICK	28	861	MNFMA03	62
APPLY MORTAR TO ONE END AND ONE SIDE OF BRICK	82	861	MNFMA01	62
APPLY SEALANT WITH PNEUMATIC SEALANT GUN	VARIABLE	807	SSRSAXX	26
APPLY SOLDER TO SEAM OR JOINT,SHEET METAL	VARIABLE	814	MNFSAXX	41
APPLY TAPE TO WIRE SPLICE	443	82X	SNFTA01	44
ASSEMBLE ANCHOR TO ROD	759	821	MTFAA01	50
ASSEMBLE CARTRIDGE TO STUD	111	860	MCHCA01	59
ASSEMBLE METAL DOOR FRAME	1613	86X	SOHFA01	58
ASSEMBLE TUBING TO THREADED FITTINGS (BOTH ENDS OF TUBING)	270	862	MTFTA01	67
ATTACH EXTENSION CHUTE TO TRANSIT MIXER	462	844	SOHCA01	54
ATTACH OXYGEN AND ACETYLENE HOSES TO TORCH TORCH	954	81X	MJPHA01	35
BACK OFF DIE THREADING TOOL,HAND HELD	617	862	MTLCB01	68
BEND CONDUIT WITH HICKEY	VARIABLE	82X	STLCBXX	46

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OPERATION/ELEMENT DESCRIPTION	TMU VALUE	OCCUP- ATION	DWMSTD ELEMENT	PAGE
BEND CONDUIT WITH HYDRAULIC BENDER	VARIABLE	82X	MTPCBXX	47
BEND ELECTRICAL METALLIC TUBING WITH MANUAL BENDER	VARIABLE	82X	STLT8XX	47
BEND SPLICE PARALLEL TO CONDUCTOR WITH PLIERS	95	82X	MTLSB01	46
BEND TUBING TO MATCH FITTING	167	862	MOHTB01	66
BEND TUBING WITH TUBING BENDER	VARIABLE	862	MTLT8XX	68
BEND WIRE 90 DEGREES FOR FORMING IN ELECTRICAL BOX	VARIABLE	82X	MCHWBXX	45
BREAK ARC AND MOVE TO NEXT WELD	153	810	MOHAB01	40
BREAK ASPHALT INTO PIECES WITH AXE,100- POUND BUNDLE	350	853	STLAB01	56
BREAK BRICK WITH TROWEL TO FIT	331	861	MTLBB01	63
CHANGE ARC WELDING MACHINE POLARITY	293	810	MJPPC01	39
CHANGE BELT ON HAND WELD SANDING MACHINE	380	86X	SJPBC01	56
CHANGE CHISEL IN PNEUMATIC HAND CHIPPER	243	8XX	STPCC01	2
CHANGE DIE IN STOCK,HAND THREADING DIE	211	8XX	MJFDC01	1
CHANGE DIE SIZE ON HEAVY DUTY PIPE MACHINE	133	862	MSUSC01	67
CHANGE HELI-ARC WELDING ELECTRODE	VARIABLE	810	SJPECXX	39
CHANGE OXY-ACETYLENE TORCH TIP WITH WRENCH	669	81X	SJPTC01	36
CHANGE POSITION HORIZONTALLY ON POLE	402	821	MBMPC01	48
CHANGE SANDPAPER ON DRUM SANDER	2233	864	SJPSC01	70
CHANGE TUNGSTEN ELECTRODE IN TORCH	350	81X	MJPEC01	35
CHANGE WELDING ROD IN ELECTRODE HOLDER	VARIABLE	81X	MJPPCXX	35
CHANGE WELDING ROD IN ELECTRODE HOLDER	354	810	SJPRC01	39
CHECK DOOR FRAME FOR VERTICAL ALIGNMENT WITH LEVEL	1041	86X	SITFC01	56
CHECK PART FOR WARPAGE WITH 12-INCH SCALE	143	81X	MGHFC01	34
CHIP BRICK OUT WITH CHISEL AND HAMMER, PER CUBIC INCH	190	861	MTLCB01	64
CHIP CONCRETE WITH CHISEL AND HAMMER, SEVEN CUBIC INCHES	3699	844	MTLCC01	54
CHIP SLAG WITH CHIPPING HAMMER,CHISEL AND BRUSH	VARIABLE	81X	MCLSCXX	33
CLAMP WIRE BUNDLE TO BULKHEAD	1274	825	SCPWC01	53
CLEAN HIGH PRESSURE HOLE	62	811	MCLHC02	41
CLEAN LEAD CABLE SHEATHING BY SCRAPING	335	821	MCLSC01	49
CLEAN TIP WITH EMERY CLOTH WRAPPED AROUND FILE,SPOT WELDER	224	81X	MCLTC03	34
CLEAN TIP WITH SANDPAPER,WELDING GUN	VARIABLE	81X	MCLTCXX	34
CLEAN TORCH TIP HOLES	751	811	MCLHC01	40
CLIMB POLE FROM LOWER TO UPPER CROSSARM	686	821	MBMCP02	48
CLIMB POLE TO LOWER CROSSARM,APPROXIMATELY 30 FEET	1513	821	MBMCP01	48

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OPERATION/ELEMENT DESCRIPTION	TNU VALUE	OCCUP- ATION	DWNSTDP ELEMENT	PAGE
CLOSE BLOWPIPE OXYGEN AND ACETYLENE VALVES	VARIABLE	811	MACVOXX	40
COIL WIRE BUNDLE AND TIE	VARIABLE	82X	SNFWCXX	44
CONNECT ELECTRODE HOLDER CABLE TO ARC WELDER	546	81X	MJPCC01	34
CONNECT TERMINAL LUG TO SWITCH	64	82X	MDALC01	43
CRIMP TERMINAL LUG TO WIRE	83	82X	MTLLC01	46
CUT ALUMINUM WITH COMPOUND LEVER SNIPS, PER LINEAR INCH	VARIABLE	80X	STLACXX	6
CUT ALUMINUM WITH DISC,ROUTER OR SIMILAR- MOUNTED IN PNEUMATIC GUN. PROCESS TIME	1551	807	BPTAC01	25
CUT ALUMINUM WITH JEWELER,S OR SKIN SAW.	VARIABLE	807	STLASXX	32
CUT ALUMINUM WITH SAW MOUNTED IN PNEUMATIC GUN STARTS-WITH SAW IN POSITION FOR CUTTING	1985	807	BPTAC02	25
CUT AWAY DAMAGED AREA ALUMINUM ALLOY TO .064 INCH THICKNESS,RECTANGULAR AREA	VARIABLE	807	STLCAXX	32
CUT AWAY DAMAGED AREA,ALUMINUM ALLCY TO .064 INCH THICKNESS,CIRCULAR AREA	VARIABLE	807	STLACXX	31
CUT BANDING ON REEL OF WIRE,CABLE OR SIMILAR	253	82X	MTLBC01	45
CUT COAXIAL PLUG FROM CABLE	VARIABLE	82X	STLPCXX	47
CUT COLLAR FROM DRAW TYPE SHEAR PIN	VARIABLE	807	SNFCCXX	16
CUT HOLE IN ALUMINUM TO .064 INCH THICKNESS CIRCULAR ACCESS HOLE	VARIABLE	807	SFAHCXX	14
CUT HOLE IN ALUMINUM TO .064 INC. THICKNESS	VARIABLE	807	SFACHXX	13
CUT HOLE IN CARDBOARD CONTAINER WITH KNIFE	85	82X	MTLHC01	45
CUT METAL WITH SNIPS,PER INCH,SHEET METAL	VARIABLE	80X	STLMCXX	7
CUT OFF MORTAR JOINT WITH TROWEL,BOTTOM AND ONE END, THREE BRICKS	246	861	MTLJC01	64
CUT OFF MORTAR JOINT WITH TROWEL,BOTTOM AND ONE END, ONE BRICK	117	861	MTLJC02	64
CUT OFF TUBING WITH HAND CUTTER	VARIABLE	862	MTLTCXX	68
CUT PIPE COVER WITH HACK SAW	VARIABLE	862	MTLCCXX	68
CUT PIPE WITH PIPE CUTTER	3830	862	MTLPC01	68
CUT RIVET PROTRUDING HEAD WITH RIVET GUN AND CHISEL	VARIABLE	800	SNFCRXX	8
CUT ROOFING FELT WITH KNIFE, PER LINEAR FOOT	VARIABLE	866	MTLFCXX	71
CUT SHINGLE WITH SHINGLE CUTTER,ASBESTOS SHINGLE	146	863	MTLSC01	69
CUT THREAD IN CONDUIT	343	82X	MTLTC01	46
CUT, CEMENT BAG OR SIMILAR USING TROWEL	660	861	MTLBC01	63
DESCEND FROM LOWER CROSSARM	5843	821	SEMPC01	49
DETACH ELECTRODE TIP FROM SPOTWELDER	104	81X	MJPTD02	36
DETACH TORCH TIP BY HAND	251	81X	MJPTD01	36



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OPERATION/ELEMENT DESCRIPTION	TWU VALUE	OCCUP- ATION	DWNSTOP ELEMENT	PAGE
DIMPLE HOLE(COLD AND HOT)	TABLE	800	TEMHOXX	7
DIP FIRE BRICK IN ADHESIVE	VARIABLE	861	MOHBOXX	62
DISCONNECT TOOL FROM EXTENSION CORD LYING FLOOR	578	86X	MTPTCO1	55
DISCONNECT WIRE FROM FISHTAPE AFTER PULLING	192	82X	MTLWDO1	46
DISENGAGE SELF-PROPELLING UNIT CONCRETE SAW	342	844	MTPEU01	55
DRESS ELECTRODE-WELDER TIP	728	81X	MCLTD01	34
DRILL HOLE WITH SPIRAL DRILL,PER STROKE	23	860	MTLHDO1	60
DRILL HOLE WITH SPIRAL DRILL(ONE INCH HOLE)	VARIABLE	860	STLCHXX	61
DRILL RIVET AND REMOVE,COUNTERSUNK CR UNIVERSAL HEAD	VARIABLE	800	SNFRDXX	9
DRIVE PIKE INTO POLE,APPROXIMATELY 20 FEET ABOVE GROUND	157	821	MTLPDO1	50
DRIVE POLE STEP INTO POLE WITH HAMMER	609	821	STLSD01	51
DRIVE RIVET OUT WITH HAMMER AND PIN PUNCH, 2-MAN OPERATION	VARIABLE	800	SNFRDXX	8
DUMP DRY AGGREGATE MIXTURE INTO MIXER FROM EMPTY ASPHALT FROM BUCKET TO "LO-BOY" CART	593	844	MACMD01	54
ENGAGE TO START FLAME CUTTING MACHINE FEED AND TURN OFF	271	866	MOHAE01	71
EXTEND OR RETRACT GUIDE HANDLES,CONCRETE SAW	78	816	MACFE01	41
FABRICATE DOUBLER OR FILLER,FLAT CIRCULAR	273	844	MTPEU01	54
FABRICATE FILLER(OR DOUBLER),FLAT RECTANG- ULAR,TO .064 INCH THICK	VARIABLE	807	SFAOFXX	13
FILL BUCKET WITH HOT ASPHALT FROM KETTLE	VARIABLE	807	SFAFFXX	14
FILL TROWEL WITH MORTAR	212	866	MOHBF01	71
FLARE TUBING END	132	861	MTLTF01	64
FORM COLD DIMPLE WITH HAND DIMPLER	1284	862	STLTF01	69
FORM SPLICE WITH PLIERS,PIGTAIL SPLICE	VARIABLE	800	STLDFXX	12
GAUGE HOLE TO DETERMINE RIVET LENGTH	413	82X	MTLSF01	46
GET NAILS FROM BOX	178	80X	MGMHG01	2
GET PIPE COVER AND POSITION ON PIPE,LENGTH OF COVER-THREE FEET	65	860	MOHNG01	59
GRIND ELECTRODE TIP	VARIABLE	862	MOHCGXX	65
GRIND MELI-ARC WELDING ELECTRODE	VARIABLE	81X	SJPTGXX	37
HEAT METAL WITH DIMPLING DIE	221	810	MJPEG01	39
HOLD BOARD FOR SAWING	VARIABLE	800	BPTMHXX	11
INSCRIBE LINE,CIRCULAR,USING FINGER AS A GUIDE	75	860	MJPBH01	59
INSERT AND REMOVE AIR HAMMER TOOL	TABLE	8XX	TLOLIXX	2
INSERT CABLE END IN BOX CONNECTOR	119	81X	MTPTI01	39
INSERT GASKET BETWEEN FLANGE JOINTS TO TWO- INCH INSIDE DIAMETER	132	824	MOHCI01	52
	97	862	MOHGI01	65

DEFENSE WORK MEASUREMENT STANDARD TIME DATA  
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OPERATION/ELEMENT DESCRIPTION	TMU VALUE	OCCUP- ATION	DWMSTD ELEMENT	PAGE
INSERT LAMP SOCKET IN REFLECTOR FITTING	65	82X	MOASI01	43
INSERT LAMP SOCKET LEADS THROUGH GROMMET	524	824	SDALI01	52
INSERT WIRE THROUGH CLIP IN RACEWAY	50	824	MWHI01	52
INSPECT RIVET WITH LIGHT AND MIRROR	370	800	SITRI02	7
INSPECT RIVET WITH LIGHT	226	800	SITRI01	7
INSTALL AIRLOC STUD PER STUD	VARIABLE	807	SNFISXX	22
INSTALL ANCHOR AND ROD ASSEMBLY IN HOLE AND	2477	821	MOHA101	49
INSTALL ANCHOR NUT DRILL NEW HOLES USING ANCHOR NUT AS DRILL GUIDE, FIRST NUT, EASY ACCESS	4502	807	SNFNI03	23
INSTALL ANCHOR NUT EASY ACCESS DRILL NEW HOLES USING ANCHOR NUT AS DRILL GUIDE, EACH ADDITIONAL NUT	2863	807	SNFNI04	23
INSTALL ANCHOR NUT IN EXISTING HOLES, EASY ACCESS	VARIABLE	807	SNFNIXX	22
INSTALL ANCHOR NUT WITH TWO RIVETS, ADDITIONAL NUT (USE DRILL JIG TO LOCATE ATTACH HOLES)	1448	807	SNFNI06	23
INSTALL ANCHOR NUT WITH TWO RIVETS, FIRST NUT (USE DRILL JIG TO LOCATE ATTACH HOLES)	4035	807	SNFNI05	23
INSTALL ANCHORED FASTENER MISSING FLOATING OR CHANNEL NUT ONLY, ALL TYPES, ADDITIONAL PIECE	454	807	SNFFI02	16
INSTALL ANCHORED FASTENER MISSING	457	807	SNFFI01	16
INSTALL ANCHORED FASTENER NUT PLATE, 1-MAN OPERATION, ALL TYPES, ADDITIONAL	3180	807	SNFFI12	19
INSTALL ANCHORED FASTENER NUT PLATE, 1-MAN OPERATION, ALL TYPES, FIRST PIECE	5390	807	SNFFI11	19
INSTALL ANCHORED FASTENER CHANNEL NUT ASSEMBLY TO EXISTING HOLES WITH BLIND RIVETS; EACH ADDITIONAL THREE NUT LENGTH	2880	807	SNFFI10	18
INSTALL ANCHORED FASTENER CHANNEL NUT ASSEMBLY TO EXISTING HOLES WITH BLIND RIVETS, FIRST OR SINGLE THREE-NUT LENGTH	14970	807	SNFFI09	18
INSTALL ANCHORED FASTENER CHANNEL NUT ASSEMBLY WITH BLIND RIVETS, EACH ADDITIONAL THREE-NUT LENGTH	4530	807	SNFFI08	18
INSTALL ANCHORED FASTENER CHANNEL NUT ASSEMBLY WITH BLIND RIVETS, FIRST OR SINGLE THREE-NUT LENGTH	18850	807	SNFFI07	18
INSTALL ANCHORED FASTENER CAMLCC OR AIRLCC RECEPTACLE OR OZUS SPRING, 2-MAN OPERATION, ADDITIONAL	3250	807	SNFFI06	18
INSTALL ANCHORED FASTENER CAMLCC OR AIRLCC RECEPTACLE, OR OZUS SPRING, 2-MAN OPERATION, FIRST PIECE	5770	807	SNFFI05	17
INSTALL ANCHORED FASTENER CAMLCC OR AIRLCC RECEPTACLE, OR OZUS SPRING, 1-MAN OPERATION, ADDITIONAL PIECE	1840	807	SNFFI04	17
INSTALL ANCHORED FASTENER CAMLCC OR AIRLOC RECEPTACLE, OR OZUS SPRING, 1-MAN OPERATION, FIRST PIECE	3610	807	SNFFI03	17

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OPERATION/ELEMENT DESCRIPTION	TMU VALUE	OCCUP- ATION	DWMSTOP ELEMENT	PAGE
INSTALL ANCHORED FASTENER RIV-NUT, ADDITIONAL	550	807	STFFI04	29
INSTALL ANCHORED FASTENER RIV-NUT, FIRST PIECE	610	807	STFFI03	28
INSTALL ANCHORED FASTENER DILL NUT WITH TOOL, ADDITIONAL PIECE	730	807	STFFI02	28
INSTALL ANCHORED FASTENER DILL NUT WITH TOOL, FIRST PIECE	883	807	STFFI01	28
INSTALL ANCHORED FASTENER RIV-NUT, MANUAL MOTIONS ONLY	VARIABLE	807	MTFFIXX	26
INSTALL BAR CLAMP AND REMOVE	VARIABLE	8XX	MCFCIXX	1
INSTALL BIT IN HAND DRILL	173	860	MJPBI02	59
INSTALL BOTTOM BRACE IN METAL DOOR FRAME	876	86X	MNFB101	57
INSTALL CAMLOC GROMMET WITH SNAP RING	VARIABLE	807	SNFGIXX	21
INSTALL CAMLOC STUD WITH CAMLOC PLIERS, NO RETAINING WASHER	VARIABLE	807	SNFSIXX	24
INSTALL CENTER BRACE IN METAL DOOR FRAME	380	86X	SNFB101	57
INSTALL CHANNEL NUT	VARIABLE	807	SNFINXX	22
INSTALL CLAMP ON WIRE BUNDLE AND SECURE TO BULKHEAD	1781	825	SCPCI01	52
INSTALL COAXIAL CABLE SPLICE TO SHIELDED WIRE	1076	82X	SWHS101	48
INSTALL DEUTSCH DRIVE PIN RIVET, ALL SIZES	VARIABLE	800	SNFIRXX	8
INSTALL DIE IN AND REMOVE FROM DIE STOCK, TWO SETSCREWS SECURING	802	8XX	SJPCI01	1
INSTALL DRAW TYPE SHEAR PIN	458	807	SNFPI01	24
INSTALL ELECTRICAL FUSE	VARIABLE	829	MOHFIXX	53
INSTALL ELECTRICAL METER PANEL	72	824	MDAPI01	51
INSTALL ELECTRODE TIP ON SPOTWELDER	121	81X	MJPTI01	36
INSTALL FLUORESCENT LAMP IN LAMP HOLDER	103	824	MDALI01	51
INSTALL GROMMET AND STUD CZUS FASTENER USING PNEUMATIC FLGCR DIMPLER	VARIABLE	607	SNFIGXX	22
INSTALL HI-LOK BOLT WITH MANUAL TOOLS	VARIABLE	807	STFBIXX	26
INSTALL HI-LOK BOLT, POWER TOOLS, ADDITIONAL	390	807	STFB108	27
INSTALL HI-LOK BOLT, POWER TOOLS, FIRST	473	807	STFB107	27
INSTALL HI-LOK COLLAR MANUAL TOOLS	VARIABLE	807	STFCIXX	27
INSTALL HI-SHEAR RIVET ADDITIONAL	466	800	SNFRI10	10
INSTALL HI-SHEAR RIVET, FIRST	703	800	SNFFI09	10
INSTALL HI-TORQUE BOLT WITH PNEUMATIC TOOL, PER BOLT	VARIABLE	807	STFIBXX	29
INSTALL HI-TORQUE BOLT WITH HAND TOOLS IN	1535	807	STFIB04	29
INSTALL HI-TORQUE BOLT WITH HAND TOOLS IN UNOBSTRUCTED LOCATION	1069	807	STFIB03	29
INSTALL HIGH STRENGTH FASTENER	VARIABLE	80X	SNFFIXX	4
INSTALL INTERPHONE JACK/PLUG	7306	823	SWHJ101	51

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OPERATION/ELEMENT DESCRIPTION	TMU VALUE	OCCUP- ATION	DWMSTOP ELEMENT	PAGE
INSTALL JO-BOLT WITH ARO JO-BOLT GUN MODEL 7 OR SIMILAR	VARIABLE	807	STFJIXX	30
INSTALL JO-BOLT WITH HAND TOOL	VARIABLE	807	STFIJXX	30
INSTALL JO-BOLT WITH PNEUMATIC TOOL	49	807	BPTJ101	25
INSTALL JO-BOLT, OBSTRUCTED, USE JO-BOLT SET	631	807	STFJ103	30
INSTALL JUNCTION BOX ON CONDUIT	914	82X	MOHB101	44
INSTALL NATIONAL-STAR INSIGNIA ON AIRCRAFT	80610	845	SPAI101	55
INSTALL RACEWAY BASE SECTION COVER	586	82X	MOAC101	43
INSTALL RESCUE ARROW ON AIRCRAFT	26650	845	SPAA101	55
INSTALL RIVET	VARIABLE	800	SNFRIXX	9
INSTALL RIVET COLLARED FASTENER E/16-1/4 INCH DIAMETER, ADDITIONAL RIVET	335	800	SNFRI08	9
INSTALL RIVET COLLARED FASTENER, 3/16-1/4 INCH DIAMETER, FIRST RIVET	683	800	SNFRI07	9
INSTALL RIVET, BLIND, PULLED, ALL TYPES, EACH ADDITIONAL RIVET	445	800	SNFRI12	10
INSTALL RIVET, BLIND, PULLED, ALL TYPES, FIRST RIVET	525	800	SNFRI11	10
INSTALL RUBBER INSULATOR HOOD ON ENERGIZED LINE	257	821	MOHH101	50
INSTALL SEALANT CARTRIDGE IN AND REMOVE FROM GUN	1330	807	SJPCI01	15
INSTALL SOLDERLESS CONNECTOR SPLIT BOLT TYPE	1411	821	SNFCI01	49
INSTALL SOLID WASHER ON CAMLOC STUD ASSEMBLY	274	807	SNFWI02	25
INSTALL SPLIT WASHER ON CAMLOC STUD ASSEMBLY	326	807	SNFWI01	24
INSTALL STAPLE IN PIPE COVER	VARIABLE	862	MNFSIXX	64
INSTALL STRESS HEAD CAMLOC STUD PER STUD	318	807	SNFSI03	24
INSTALL STUD WITH POWER ACTUATED GUN	494	860	STPSI01	61
INSTALL THREADING DIE AND REMOVE, PIPE THREADING MACHINE	500	862	SSUDI01	67
INSTALL WEDGE LOCK	VARIABLE	80X	SNFLIXX	5
INSTALL WEDGE TO HOLD DOOR FRAME IN PLACE	251	86X	SNFWI01	57
INSTALL WEDGE TO RAISE AND LEVEL DOOR FRAME	458	86X	SNFWI02	57
KNOCK OUT RIVET COLLARED FASTENER, ALUMINUM	VARIABLE	800	SNFRKXX	10
KNOCK SCALE FROM WELD WITH HAMMER AND BRUSH	VARIABLE	81X	MCLSKXX	34
LEVEL FOUNDATION PLATE WITH SHIMS	277	860	MOHPM01	60
LIFT ASSEMBLED PARTITION FROM FLOOR AND POSITION TO MARKS	704	860	MOHPL01	59
LIGHT ACETYLENE TORCH WITH FRICTION TYPE IGNITER	67	81X	MJPTL01	36
LIGHT BLOWPIPE	120	811	MJPBL01	41
LIGHT OXY-ACETYLENE TORCH	349	81X	SJPTL01	37

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OPERATION/ELEMENT DESCRIPTION	TMU VALUE	OCCUP- ATION	DWMSTOP ELEMENT	PAGE
LOAD CAULKING GUN WITH CARTRIDGE	125	86X	MTLGL01	58
LOOSEN CAMLOCK FASTENER	VARIABLE	80X	MNFFLXX	3
LOWER DRUM SANDER TO OR RAISE FROM FLOOR	49	864	MTPSL01	70
MAKE CENTER SPLICE	120	82X	MWHSM01	47
MAKE INERT GAS-ARC WELD	VARIABLE	810	SNFWMXX	40
MAKE SPLICE(TWO WIRES)WITH STAKE-ON PLIERS	2367	82X	SWHSM01	48
MARK LINE WITH CHALK LINE	VARIABLE	8XX	MLQLMXX	1
MEASURE JOOR FRAME AND CENTER IN OPENING	922	86X	MITFM01	56
MCP ASPHALT ON SURFACE FROM WHEELED BUCKET	VARIABLE	866	MOHAMXX	71
MOVE EXTENSION LADDER WEIGHT TO 60 POUNDS	347	8XX	MOHLM01	2
MOVE EXTENSION LADDER,LADDER 20 FEET LONG	440	8XX	MOFLM02	2
MOVE FELT ASIDE FOR ACHESIVE APPLICATION	162	864	MOHFM01	70
MOVE FELT INTO POSITION AFTER ADHESIVE APPLICATION	263	864	MOHFM02	70
NAIL ROOFING FELT WITH ROOFING NAILS PER NAIL	68	866	MNFFN01	71
OBTAIN AND WET BRICK PREPARATORY TO INSTALLATION	169	861	MOHBO01	62
OBTAIN CEMENT BAG AND OPEN	429	861	SOHBO01	63
OBTAIN CLOTH FROM ROLL	288	862	MOHCO01	65
OBTAIN GASKET CUTTER FROM CASE AND PUT AWAY	256	86X	MOHCO01	57
OBTAIN LANPWICK AND WRAP ON THREADS OF PIPE	823	862	MOHLO01	65
OBTAIN SANDING BLOCK AND ATTACH SANDPAPER	112	86X	MJPBC01	56
OPEN KNOB ON ACETYLENE TORCH TIP	93	81X	MACKO01	33
OPEN OR CLOSE FUSED CUTOUT ON POLE WITH DISCONNECT STICK	202	821	MCHCC01	49
OPEN POWDER ACTUATED GUN	99	860	MTPGC01	61
OPEN VISE(PIPE)	266	862	MVSVO01	69
PLACE FIRE BRICK AND TAP INTO POSITION	280	861	MOHBP01	62
PLACE FLAME CUTTING MACHINE ON RING	51	816	MSUMP01	42
PLACE GLASS IN WINDOW FOR FINAL INSTALLATION	138	865	MOHGP02	70
PLACE LEAD ON TERMINAL AND CLOSE WITH PLIERS	56	82X	MTLLP01	46
PLACE PLUG/RECEPTACLE IN PLASTIC BAG	1393	82X	SOHPP01	45
PLACE RADIUS BAR IN FLAME CUTTING MACHINE	145	816	MSUBP01	42
PLACE RUBBER HOSE ON ENERGIZED LINE	324	821	MOHHP01	50
POINT MORTAR JOINT,HORIZONTAL AND	208	861	MTLJP01	64
POSITION ASBESTOS SHINGLE TO WALL	208	863	MOHSP01	69
POSITION BIT(AND ERACE)FOR DRILLING AND REMOVE	69	860	MTLBP01	60
POSITION BLOWPIPE TO METAL	45	811	MOHBP01	41
POSITION DIE TO PIPE AND START FIRST THREAD, HAND-HELD PIPE DIE	116	862	MTLOP01	68

**DEFENSE WORK MEASUREMENT STANDARD TIME DATA  
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OPERATION/ELEMENT DESCRIPTION	TMU VALUE	OCCUP- ATION	DWNSTDP ELEMENT	PAGE
POSITION ELECTRODE AND STRIKE ARC	53	810	MNFEP01	40
POSITION FLAME CUTTING MACHINE TORCH ARM FOR BURNING CIRCLES OR STRAIGHT LINES	103	816	MSUTP01	42
POSITION FOUNDATION PLATE TO BOLTS SET IN CONCRETE	441	860	MOHPP01	60
POSITION NAIL AND START TO DRIVE WITH HAMMER	59	860	MTLNP01	60
POSITION PIECES TO ASSEMBLE PITTSBURGH LOCK SEAM	VARIABLE	804	MOHPPXX	12
POSITION PIPE AND ENGAGE THREADS(PIPE	194	862	MTFPP01	67
POSITION PIPE IN THREADING MACHINE CHUCK AND REMOVE TO FOUR FOOT LENGTH	359	862	MOHPP03	66
POSITION PIPE IN THREADING MACHINE AND	442	862	MOHPP02	66
POSITION PIPE IN THREADING MACHINE AND REMOVE, TO FOUR-FOOT LENGTH	264	862	MOHPP01	66
POSITION PIPE STAND UNDER PIPE	331	862	MOHSP01	66
POSITION PNEUMATIC HAMMER FOR DRILLING AND REMOVE AFTER DRILLING	272	844	MTPHP01	54
POSITION POWDER ACTUATED GUN AND FIRE ONE BOLT OR STUD	221	860	MTPGP01	61
POSITION REAMING TOOL AND RETURN, TOLEDO 999 PIPE MACHINE OR SIMILAR	252	862	SEMTPO1	64
POSITION RING(FLAME CUTTING MACHINE) ON PLATE TO BURN CIRCLES	128	816	MSURP01	42
POSITION SPIRAL DRILL TO MARK AND REMOVE	37	860	MTLOP01	60
POSITION THREADING DIE TO PIPE AND RETRACT, TOLEDO MODEL 999 OR SIMILAR PIPE MACHINE	253	862	MSUCP01	67
POSITION TILE AND LEVEL TO ADJOINING TILE	417	861	SOHTP01	63
POUR GROUT AND WORK INTO CRACKS OF FLOOR TILE, PER SQUARE FOOT	333	861	SOHGP01	63
PREPARE ANCHORED FASTENER HOLE AND INSTALL	VARIABLE	807	SNFFPXX	20
PREPARE JILER FOR FILLING	187	82X	MJPOP01	43
PREPARE SPOT WELDER, ADJUST HEAT	5206	81X	MJPWP01	36
PREPARE TOOLS FOR JO BOLT INSTALLATION	922	807	MJPTP01	15
PULL RAM ARM TO FREE ANVIL, HYDRAULIC CONDUIT BENDER	108	82X	MTFAP01	47
PUMP PRESSURE IN BLOW TORCH TANK	280	814	SJPPP01	41
PUNCH HOLE WITH PORTABLE PUNCH	VARIABLE	8XX	MTLHPXX	2
PUNCH SPINGLE HOLE WITH MANUAL PUNCH ASBESTOS SHINGLE	VARIABLE	863	MTLSPXX	69
PUT ON RUBBER LINEMAN'S SLEEVES	546	821	MJPSP01	49
PUT TANK ON HAND TRUCK	355	81X	MOHTP01	38
PUT TOOL POUCH AROUND WAIST WITH STRAP AND REMOVE	363	8XX	SJPPP01	1
RAISE EQUIPMENT ON POLE WITH HANDLINE	359	821	MOHER01	50
RAISE OBJECT WITH MANUALLY OPERATED HOIST, AVERAGE 28-FOOT HEIGHT	886	86X	NMHOR01	57

DEFENSE WORK MEASUREMENT STANDARD TIME DATA  
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OPERATION/ELEMENT DESCRIPTION	TMU VALUE	OCCUP- ATION	DWMSTDP ELEMENT	PAGE
RAISE WELDING SHIELD	76	81X	MJPSR01	36
READJUST REGULATOR TWO TANKS	83	81X	MJPRR01	35
REAM END CONDUIT ONE INCH DIAMETER, HAND REAMER	175	82X	MTLCR01	45
REAM HOLE WITH HAND REAMER	VARIABLE	80X	MTLHXXX	6
REAM TUBING END WITH HAND REAMER	450	862	STLTR01	69
RELEASE TENSION ON OX -ACETYLENE WELDING REGULATOR	119	81X	MJPTR01	36
REMOVE AIRLOC STUD PIN WITH AIRLOC TOOL	VARIABLE	807	SNFRSXX	24
REMOVE ANCHORED FASTENER WORN OR STRIPPED FLOATING OR CHANNEL NUT ONLY	VARIABLE	807	SNFRFXX	24
REMOVE ANCHORED FASTENER CILL NUT	VARIABLE	807	STFFRXX	29
REMOVE BELTING FROM LEAD SHEATHED CABLE	283	821	MOHER01	49
REMOVE BIT FROM BRACE	234	860	MJPBI01	59
REMOVE BIT FROM SPIRAL DRILL	102	860	MJPBI03	59
REMOVE BLIND FASTENER, DEUTSCH DRIVE PIN RIVET	VARIABLE	800	SNFFRXX	8
REMOVE BROKEN SHINGLE FROM WALL, ASBESTOS SHINGLE	485	863	MOHSR01	69
REMOVE BURNING GOGGLES	110	81X	MJPGP01	35
REMOVE CAMLOC GROMMET SECURED WITH SNAP RING	VARIABLE	807	SNFGRXX	21
REMOVE CAMLOC STUD NO RETAINING WASHER	VARIABLE	807	SNFRSXX	24
REMOVE CLAMP FROM BULKHEAD	1026	825	SCPCR02	53
REMOVE DENT FROM ALUMINUM TO .064 INCH THICKNESS PER SQUARE INCH	VARIABLE	807	STLDRXX	32
REMOVE ECP CLAMP FROM WIRE BUNDLE	1173	825	SCPCR01	52
REMOVE ELECTRICAL METER PANEL	42	824	MDAPR01	52
REMOVE EMPTY BUCKET FROM HOIST AND ATTACH FULL BUCKET AT GROUND LEVEL	198	866	MOHBR01	71
REMOVE FILLER AND CUT, LEAD SHEATHED CABLE	95	821	MOHFR01	50
REMOVE FLAME CUTTING MACHINE WHEEL	155	816	MSUWR01	42
REMOVE GASKET FROM CUTTING BOARD AND ASIDE SCRAP	245	86X	MOHGR01	58
REMOVE GLASS FROM WINDOW FOR TRIAL INSTALL- ATION	58	865	MCHGP01	70
REMOVE GROMMET AND STUD (CZUS FASTENR) MANUAL	VARIABLE	807	MNFGRXX	15
REMOVE HI-LOK BOLT MANUAL TOOLS	VARIABLE	807	STFBRXX	27
REMOVE HI-LOK COLLAR MANUAL TOOLS	VARIABLE	807	STFCRXX	28
REMOVE INTERPHONE JACK/PLUG	2376	823	SWHJR01	51
REMOVE JO-BOLT	VARIABLE	807	STFRJXX	31
REMOVE JO-BOLT	VARIABLE	807	STFJRXX	30
REMOVE LAMINATION ONE LAYER FROM SHINSTOCK, TO TWO INCHES WIDE AND SIX INCHES LONG	VARIABLE	80X	STLLRXX	6

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OPERATION/ELEMENT DESCRIPTION	TMU VALUE	OCCUP- ATION	CWMSTOP ELEMENT	PAGE
REMOVE NAIL WITH HAMMER	VARIABLE	860	STLNRXX	61
REMOVE PAPER BACKING FROM TILE FIELD:13"x26"	574	861	SCHBR01	63
REMOVE PAPER FROM CONDUCTOR AFTER OUTER INSULATION HAS BEEN STRIPPED	90	82X	MOHPR01	44
REMOVE PAPER WRAPPING FROM COIL OF WIRE	1611	82X	MOHWR01	45
REMOVE PAPER WRAPPING FROM 100-POUND BUNDLE OF ASPHALT	200	853	SCHWR01	55
REMOVE RIVET:SOLID,DRIVEN	VARIABLE	800	SNFRRXX	11
REMOVE SLAG WITH CHIPPING HAMMER	VARIABLE	81X	MCLRRXX	34
REMOVE SPLICE	151	82X	SWHSR01	48
REMOVE SPLIT WASHER FROM CAMLOC STUD,PER WASHER	140	807	SNFWR01	25
REMOVE SPOT TIE	157	82X	SNFTR01	44
REMOVE TANK FROM HAND TRUCK	126	81X	MOHTR01	36
REMOVE WEDGE LOCK WITH PNEUMATIC TOOL	231	80X	SNFLR01	6
REMOVE WELDING SHIELD	173	81X	MJPSP01	35
REPLACE ANCHORED FASTENER	VARIABLE	807	SNFFRXX	21
REPLACE BULB WITH BULB CHANGER	VARIABLE	829	STLBRXX	54
REPLACE ELECTRODE-GAS TIP	635	811	MJPTR01	41
REPLACE FLUORESCENT STARTER IN FIXTURE	144	829	MOHSR01	53
REPLACE HIGH STRENGTH FASTENERS	VARIABLE	80X	SNFFRXX	5
REPOSITION HICKEY ON CONDUIT	134	82X	MTLHR01	45
REVERSE RATCHET ON THREADING TOOL	54	8XX	MTLRR01	2
ROTATE POLE WITH CANT HOOK	415	821	MTLPR01	50
ROUTE WIRE/WIRE BUNDLE IN AIRCRAFT	1596	825	SWHWR01	53
SAW BOARD IN MITER BOX	VARIABLE	860	MTLBSXX	60
SCRAPE SPATTER PER INCH OF WELD	30	81X	MCLSS01	34
SCREED MORTAR SETTING BED PER TWO SQUARE FEET	357	861	MTLBS01	63
SEAT TURNLOCK FASTENER AND TIGHTEN	VARIABLE	80X	SNFFSXX	5
SET HUCK LOCK BOLT WITH PULL TYPE GUN	50	807	BPTBS01	25
SET RIBET WITH PNEUMATIC GUN PROCESS TIME ONLY	257	800	BPTRS01	11
SET SPOT WELDING MACHINE THYRATON CONTRCLS	129	813	MSUTS01	41
SET TRAMMEL TO SCALE	VARIABLE	809	MJPTSXX	32
SET UP AIRLOC TOOL FOR INSTALLATION OR REMOVAL OF PIN IN AIRLOC STUD	1638	80X	SJPTS01	3
SET UP ARC WELDING MACHINE	303	810	MJFMS01	36
SET UP DIMPLE MACHINE(COLD)	3359	800	SSUCS01	11
SET UP HOT DIMPLE MACHINE	4624	800	SSUMS01	12
SET UP PNEUMATIC SQUEEZE TOOL AND ASIDE,FOR INSTALLATION OF PIN IN AIRLOC STUD	353	80X	SJPTS02	3



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OPERATION/ELEMENT DESCRIPTION	TMU VALUE	OCCUP- ATION	DWMSTOP ELEMENT	PAGE
SET UP RIVET GUN,CHANGE RIVET SET	173	800	SJPGS02	7
SET UP RIVET GUN,INITIAL	424	800	SJPGS01	7
SET UP WELDING MACHINE-SCIARY OR SIMILAR AND TEST WELD ONE TWO INCH SEAM	3461	81X	SSUNS02	39
SET UP WELDING MACHINE,SCIARY OR SIMILAR AND TEST WELD THREE SPOTS	3995	81X	SSUNS01	38
SMOOTH CLOTH AFTER WRAPPING AROUND PIPE	134	862	MOHCS01	65
SMOOTH MORTAR SEETING BED PRIOR TO LEVELING, PER FOUR SQUARE FEET	591	861	MOHBS01	62
SPLIT RIVET COLLAR WITH PNEUMATIC RIVET GUN, PROCESS TIME ONLY	153	807	BPTCS01	25
SPRAY PAINT ON AIRCRAFT SURFACE,PER TEN SQUARE FEET	VARIABLE	845	MPAPSXX	55
SPREAD GRAVEL WITH SHOVEL,PER SHOVELFUL	261	866	MTLGS01	72
SPREAD HOT BITUMINOUS MIX WITH RAKE,PER SQUARE YARD	776	853	MTLMS01	55
START NAIL IN BOARD	VARIABLE	860	MTLNSXX	61
STRIKE LINE WITH CHALK LINE	281	860	MTLLS01	60
STRIKE, MORTAR JOINT VERTICAL AND HORIZONTAL ONE BLOCK,WITH TROWEL	195	861	MTLJS01	64
TAKE OFF WELDERS JACKET	435	81X	MJPJP01	35
TAP BRICK INTO POSITION FOR TIE-IN	673	861	MOHBT02	63
TAP JAMB FIRE BRICK INTO POSITION ON OUTSIDE CORNER	475	861	MOHBT01	62
TAPE WIRE BUNDLE AND TIE	1838	82X	SNFWT01	44
TIE WIRE BUNDLE TO TOMBSTONE	1296	825	SNHWT01	53
TIGHTEN CAMLOC FASTENER	VARIABLE	80X	MNFFTXX	3
TIGHTEN OR LOOSEN PRELIMINARY JOINT FLANGE	VARIABLE	862	MTLJTXX	68
TIGHTEN OR LOOSEN WHEEL TO ADJUST REAR GUIDE CLAMPS, HEAVY DUTY PIPE MACHINE	418	862	MSUWT01	67
TURN OFF ACETYLENE AND OXYGEN VALVE	69	81X	MACVT01	33
TURN OFF OXY-ACETYLENE CYLINDER VALVE	321	81X	MJPVT01	36
TURN OFF WELDING MACHINE	74	81X	MACHT01	33
TURN ON BRANCH LIGHTING CIRCUIT SWITCH	161	82X	MJPST01	43
TURN ON GAS,LIGHT,AND TURN OFF,GAS BURNER FOR HEATING SOLDERING IRON OR SIMILAR	130	8XX	MJPGT01	1
UNLOCK PORTABLE SCAFFOLD WHEELS	992	86X	MACSL01	56
UNLOCK TURNLOCK FASTENER	VARIABLE	80X	SNFFUXX	5
UNROLL ROOFING FELT 15 FEET	352	86X	MOHFU01	57
UNROLL TUBING FROM COIL	430	862	MOHTU01	67
UNWRAP ELECTRICAL FISHTAPE FROM AND WRAP ON	VARIABLE	82X	MJPFUXX	43
USE DIVIDERS TO SCRIBE 90-DEGREE ARC	152	809	MTLDU01	33
USE ELECTRICAL FISHTAPE,DISENGAGE TWO TAPES	48	82X	MTLFU02	45

DEFENSE WORK MEASUREMENT STANDARD TIME DATA  
VERB/NOUN INDEX

OPERATION/ELEMENT DESCRIPTION	TMU VALUE	OCCUP- ATION	DWMSTD ELEMENT	PAGE
USE ELECTRICAL FISHTAPE, FEED INTO CIRCUIT	68	82X	MTLFU01	45
USE HOLE FINDER, LEAF TYPE	VARIABLE	80X	MTLFUXX	6
USE PLUMB BOB	538	86X	MTLBU01	58
USE RULE TO MEASURE	317	8XX	MGMRU01	1
USE TRAMMEL TO SCRIBE 90-DEGREE ARC, ONE OPERATOR, 36-INCH RADII	328	809	MTLTU01	33
WELD SPOT	68	81X	BPTSW01	38
WELD SPOT OR SEAM	VARIABLE	81X	SNFSWXX	37
WELD SPOT (OR SEAM) ON SCIAKY STATIONARY WELDING MACHINE	VARIABLE	81X	SNFWSXX	37
WRAP FITTING WITH CHICKEN OR SIMILAR WIRE	310	862	MOHFW01	65

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DEFENSE WORK MEASUREMENT STANDARD TIME DATA PROGRAM  
(DWMSTDP)

PART TWO - STRUCTURAL WORK OCCUPATIONS STANDARD TIME DATA

SECTION II - DWMSTDP ELEMENT LISTING

# DEFENSE WORK MEASUREMENT STANDARD TIME DATA ELEMENTS

DATA SOURCE	OCCUP- ATION	QUALITY	SOURCE CODE	DWMSTDP ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION
NO	8XX	MAO	LFAIR	MCPCIXX	VARIABLE	CLAMP(BAR), INSTALL AND REMOVE STARTS-WITH REACH TO BAR CLAMP INCLUDES-ALL MOTIONS NECESSARY TO GET BAR CLAMP FROM BENCH, POSITION CLAMP TO PART AND CLOSE CLAMP ON PART; REACH TO CLAMP, OPEN CLAMP, MOVE CLAMP FROM PART AND ASIDE CLAMP TO BENCH ENDS-WITH RELEASE CLAMP CASE 01 INSTALL BAR CLAMP 02 REMOVE BAR CLAMP 236 185
NF	8XX	MAF	778	MGMRU01	317	RULE, USE TO MEASURE STARTS-WITH RULE IN HAND INCLUDES-ALL MOTIONS NECESSARY TO STOOP AND PLACE RULE TO FIRST REFERENCE POINT, ARISE, WALK TWO PACES TO OTHER END OF RULE, STOOP AND PLACE RULE TO SECND REFERENCE POINT, READ RULE, PICK UP RULE, AND ARISE ENDS-WITH OPERATOR STANDING ERECT WITH RULE IN HAND CONDITIONS-APPLICABLE TO MEASUREMENTS GREATER THAN ONE BUT LESS THAN TWO FULL LENGTHS OF RULE. TIME TO UNFOLD AND FOLD RULE NOT INCLUDED
NF	8XX	MAF	3529	MJPOC01	211	DIE, CHANGE IN STOCK, HAND THREADING DIE STARTS-WITH DIE IN HAND INCLUDES-ALL MOTIONS NECESSARY TO RELEASE RATCHET, REMOVE AND ASIDE DIE, GET DIE, POSITION IN STOCK, AND ENGAGE RATCHET ENDS-WITH DIE IN HAND
NF	8XX	MAF	2398/99	MJPGT01	130	GAS, TURN ON, LIGHT, AND TURN OFF, GAS BURNER FOR HEATING SOLDERING IRON OR SIMILAR STARTS-WITH REACH TO LIGHTER INCLUDES-ALL MOTIONS NECESSARY TO GET LIGHTER, LIGHT BURNER WHILE TURNING VALVE TO START GAS FLOW, AND ASIDE LIGHTER; AND TURN VALVE CLOSED TO EXTINGUISH FLAME ENDS-WITH RELEASE OF VALVE
FFE	8XX	MAA	GTLDR6	SJPD01	802	DIE, INSTALL IN AND REMOVE FROM DIE STOCK, TWO SETSCREWS SECURING STARTS-WITH GET DIE STOCK INCLUDES-ALL MOTIONS NECESSARY TO LOOSEN TWO SETSCREWS TWO THREADS EACH BY HAND, GET DIE, PLACE DIE IN STOCK, TURN TWO SETSCREWS IN TWO THREADS EACH BY HAND, GET SCREWDRIVER, TIGHTEN TWO SETSCREWS, ASIDE SCREWDRIVER; GET DIE STOCK, GET SCREWDRIVER, LOOSEN TWO SETSCREWS, ASIDE SCREWDRIVER, AND INVERT DIE STOCK TO REMOVE DIE ENDS-WITH ASIDE DIE AND DIE STOCK
NF	8XX	MAF	3897	SJPPP01	363	POUCH(TOCL), PUT AROUND WAIST WITH STRAP AND REMOVE STARTS-WITH REACH TO POUCH INCLUDES-ALL MOTIONS NECESSARY TO GET POUCH, MOVE POUCH TO HIP, MOVE STRAP AROUND WAIST, FASTEN BUCKLE, AND PASS END OF STRAP THROUGH GUARD; AND REACH TO STRAP, UNBUCKLE, REMOVE FROM WAIST, WRAP STRAP AROUND POUCH, AND ASIDE POUCH ENDS-WITH RELEASE OF POUCH
AE	8XX	MAW	SDCEAXX	MLQLMXX	VARIABLE	LINE, MARK WITH CHALK LINE STARTS-WITH LINE IN RIGHT HAND, LEFT HAND REACH TO LINE INCLUDES-ALL MOTIONS NECESSARY TO POSITION STRING TO DESIRED LOCATION, HOLD STRING TAUT AND STRIKE LINE AND MOVE STRING AWAY ENDS-WITH STRING IN HANDS CONDITIONS-APPLICABLE TO MARKING FOR DECAL INSTALLATION OR SIMILAR CASE 01 MARK ONE-FOOT GUIDE LINE 02 MARK THREE-FOOT GUIDE LINE 103 172

# DEFENSE WORK MEASUREMENT STANDARD TIME DATA ELEMENTS

DATA SOURCE	OCCUP- ATION	QUALITY	SOURCE CODE	DWMSTD ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION
NAA	8XX	MAA	AMRGSXX	TLCLIXX	TABLE	LINE, INSCRIBE, CIRCULAR, USING FINGER AS A GUIDE STARTS-WITH GET MARKING DEVICE INCLUDES-ALL MOTIONS NECESSARY TO GET PART AND POSITION FOR MARKING, POSITION FINGER TO EDGE OF PART, AND DRAW CIRCLE USING THE FINGER RESTING ON EDGE OF PART AS GUIDE ENDS-WITH ASIDE PART, MARKING DEVICE IN HAND  DIAMETER OF CIRCLE (INCHES) 2-6 6-12 A B FIRST CIRCLE A 659 1157 ADDITIONAL B 527 1025 CIRCLE
NF	8XX	MAF	2372	MOHLM01	347	LADDER (EXTENSION), MOVE, WEIGHT TO 60 POUNDS STARTS-WITH REACH TO LADDER INCLUDES-ALL MOTIONS NECESSARY TO TILT LADDER FORWARD, LIFT LADDER, SIDESTEP WITH LADDER FIVE FEET, SET LADDER DOWN, LEAN LADDER AGAINST SUPPORTING SURFACE, AND MOVE LADDER TO ADJUST ANGLE ENDS-WITH RELEASE OF LADDER
NF	8XX	MAF	4106	MOHLM02	440	LADDER (EXTENSION), MOVE, LADDER 20 FEET LONG STARTS-WITH REACH TO LADDER INCLUDES-ALL MOTIONS NECESSARY TO STAND LADDER UPRIGHT, LIFT LADDER, CARRY ONE PACE TO NEW LOCATION, SET LADDER DOWN, AND POSITION AT LOCATION ENDS-WITH RELEASE OF LADDER CONDITIONS-LADDER WEIGHS TO 75 POUNDS. FOR EACH ADDITIONAL PACE LADDER IS CARRIED ADD ONE OCCURENCE OF U 88M W0 01
AF	8XX	MAA	514ARAD	MTLHPXX	VARIABLE	HOLE, PUNCH WITH PORTABLE PUNCH STARTS-WITH PUNCH IN HAND INCLUDES-ALL THE MOTIONS NECESSARY TO GET THE MATERIAL TO BE PUNCHED, MOVE PUNCH TO MATERIAL AND POSITION, MOVE PUNCH AGAINST MATERIAL, RELEASE MATERIAL WITH LEFT HAND (RIGHT HOLDING PUNCH), GRASP PUNCH WITH LEFT HAND, MOVE PUNCH HANDLE TO PUNCH HOLE, OPEN PUNCH, RELEASE PUNCH WITH LEFT HAND ENDS-WITH PUNCH HELD BY RIGHT HAND CASE 01 PUNCH FIRST OR ONLY HOLE 02 PUNCH EACH ADDITIONAL HOLE 90 51
NF	8XX	MAF	3530	MTLRR01	54	RATCHET, REVERSE ON THREADING TOOL STARTS-WITH REACH TO RATCHET RELEASE PIN INCLUDES-ALL MOTIONS NECESSARY TO DISENGAGE PIN AND TURN TO REVERSE RATCHET ON HAND THREADING TOOL ENDS-WITH RELEASE OF PIN
NF	8XX	MAF	1315	STPCC01	243	CHISEL, CHANGE IN PNEUMATIC HAND CHIPPER STARTS-WITH REACH TO CHIPPER TO HOLD INCLUDES-ALL MOTIONS NECESSARY TO GET CHISEL WITH OTHER HAND, REMOVE AND ASIDE CHISEL, GET CHISEL, AND INSERT IN CHIPPER ENDS-WITH CHIPPER IN HAND CONDITIONS-APPLICABLE TO PNEUMATIC HAND CHIPPER, ELECTRIC HAND HAMMER, OR SIMILAR
FFD	80X	MAA	KSMGH01	MGMHG01	178	HOLE, GAUGE TO DETERMINE RIVET LENGTH STARTS-WITH GET GAUGE INCLUDES-ALL MOTIONS NECESSARY TO POSITION GAUGE TO HOLE, SLIDE GAUGE BAR TO SURFACE, AND READ GAUGE ENDS-WITH ASIDE GAUGE

# DEFENSE WORK MEASUREMENT STANDARD TIME DATA ELEMENTS

DATA SOURCE	OCCUP- ATION	QUALITY	SOURCE CODE	OWMSTOP ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION
NAA	BOX	MAA	AMRQN43	SJPTS01	1638	TOOL(AIRLOC),SET UP FOR INSTALLATION OR REMOVAL OF PIN IN AIRLOC STUD STARTS-WITH GET AIRLOC TOOL INCLUDES-ALL MOTIONS NECESSARY TO PLACE TOOL IN VISE,OPEN HANDLE,GET SCREWDRIVER,REMOVE SCREW,ASIDE SCREW AND SCREWDRIVER,REMOVE THREADED SPACER,LIFT TURN BAR FROM HANDLE,LIFT BAR AND GUIDE PIN FROM SPRING,REVERSE BAR, POSITION BAR IN HANDLE,ENGAGE GUIDE PIN TO SPRING,INSTALL THREADED SPACER,GET SCREW- DRIVER,INSTALL SCREW,ASIDE SCREWDRIVER AND REMOVE TOOL FROM VISE ENDS-WITH ASIDE TOOL
NAA	BOX	MAA	AMRQN44	SJPTS02	353	TOOL(PNEUMATIC SQUEEZE),SET UP AND ASIDE,FOR INSTALLATION OF PIN IN AIRLOC STUD STARTS-WITH GET PNEUMATIC SQUEEZE INCLUDES-ALL MOTIONS NECESSARY TO GET FLUSH SQUEEZE SET,GET SLOTTED SQUEEZE SET,INSTALL SLOTTED SQUEEZE SET,INSTALL FLUSH SQUEEZE SET; AND REMOVE FLUSH SQUEEZE SET,REMOVE SLOTTED SQUEEZE SET,AND ASIDE BOTH SETS ENDS-WITH ASIDE PNEUMATIC SQUEEZE
NAA	BOX	MAA	OTFCHXX	MNFFLXX	VARIABLE	FASTENER(CAMLOC),LOOSEN STARTS-WITH GET SCREWDRIVER INCLUDES-ALL MOTIONS NECESSARY TO POSITION SCREWDRIVER TO FASTENER STUD,TURN STUD 90 DEGREES TO UNLOCK,AND TURN STUD 1.5-3 REVOLUTIONS TO UNFASTEN ENDS-WITH ASIDE SCREWDRIVER CONDITIONS-APPLICABLE TO CAMLOC HIGH STRESS PANEL FASTENER CASE 01 FIRST OR SINGLE FASTENER 02 EACH ADDITIONAL FASTENER IN A SERIES
					402 320	
NAA	BOX	MAA	OTFCHXX	MNFFTXX	VARIABLE	FASTENER(CAMLOC),TIGHTEN STARTS-WITH GET SCREWDRIVER INCLUDES-ALL MOTIONS NECESSARY TO POSITION SCREWDRIVER TO FASTENER STUD,TURN STUD COUNTERCLOCKWISE TO ALIGN,PUSH IN TO SEAT STUD,TURN STUD 90 DEGREES TO LOCK,AND TURN STUD 1.5-3 REVOLUTIONS TO TIGHTEN TO RECEPTACLE ENDS-WITH ASIDE SCREWDRIVER CONDITIONS-APPLICABLE TO CAMLOC HIGH STRESS PANEL FASTENER CASE 01 FIRST OR SINGLE FASTENER 02 EACH ADDITIONAL FASTENER IN A SERIES
					435 366	

DEFENSE WORK MEASUREMENT STANDARD TIME DATA ELEMENTS

DATA SOURCE	OCCUP- ATION	QUALITY	SOURCE CODE	DWMSTD ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION
NAA	80X	MBA	AMRHNXX	SNFFIXX	VARIABLE	FASTENER(HIGH STRENGTH), INSTALL STARTS-WITH GET TOOLS TO DRILL HOLE INCLUDES-ALL MOTIONS NECESSARY TO LOCATE HOLE, DRILL HOLE, RECESS HOLE, DEBURR HOLE, CHAMFER HOLE FOR PROPER FIT, AND INSTALL FASTENER ENDS-WITH FASTENER INSTALLED CONDITIONS-APPLICABLE TO ALL SIZE HUCK STUMP TYPE SHEAR PINS, HIGH SHEAR RIVETS, OR SIMILAR, IN HOLES WITH INTERFERENCE FIT(CASES 01-08). APPLICABLE TO HUCK PULL TYPE SHEAR PINS OR SIMILAR TO 3/8 INCH DIAMETER, ALL LENGTHS, AND TO HUCK GUN MODELS 200, 352, OR SIMILAR(CASES 09-12). APPLICABLE TO HI-LOK FASTENERS TO 9/16 INCH DIAMETER(CASES 13-16). ALL CASES APPLICABLE TO ALUMINUM .020-.250 INCH THICKNESS OR STAINLESS STEEL .020-.050 INCH THICKNESS. INCLUDES SETUP OF TOOLS.
					8900	CASE 01 FIRST HI-SHEAR FLUSH RIVET, 1-MAN OPERATION
					1770	02 EACH ADDITIONAL HI-SHEAR FLUSH RIVET, 1-MAN OPERATION
					10330	03 FIRST HI-SHEAR FLUSH RIVET, 2-MAN OPERATION
					2320	04 EACH ADDITIONAL HI-SHEAR FLUSH RIVET, 2-MAN OPERATION
					5510	05 FIRST HI-SHEAR FLAT HEAD RIVET, 1-MAN OPERATION
					1530	06 EACH ADDITIONAL HI-SHEAR FLAT HEAD RIVET, 1-MAN OPERATION
					6940	07 FIRST HI-SHEAR FLAT HEAD RIVET, 2-MAN OPERATION
					2080	08 EACH ADDITIONAL HI-SHEAR FLAT HEAD RIVET, 2-MAN OPERATION
					7160	09 FIRST FLUSH HUCK LOCK FASTENER
					1510	10 EACH ADDITIONAL FLUSH HUCK LOCK FASTENER
					4270	11 FIRST UNIVERSAL HUCK LOCK FASTENER
					1340	12 EACH ADDITIONAL UNIVERSAL HUCK LOCK FASTENER
					8020	13 FIRST FLUSH HI-LOK FASTENER
					2070	14 EACH ADDITIONAL FLUSH HI-LOK FASTENER
					5130	15 FIRST UNIVERSAL HI-LOK FASTENER
					1900	16 EACH ADDITIONAL UNIVERSAL HI-LOK FASTENER

# DEFENSE WORK MEASUREMENT STANDARD TIME DATA ELEMENTS

DATA SOURCE	OCCUP- ATTN	QUALITY	SOURCE CODE	DWMSTOP ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION
NAA	80X	MBA	AMRHRXX	SNFFRXX	VARIABLE	FASTENERS(HIGH STRENGTH),REPLACE STARTS-WITH REACH TO TOOL OR AIR HOSE INCLUDES-ALL MOTIONS NECESSARY TO REMOVE AND INSTALL HIGH STRENGTH FASTENER AS DESCRIBED IN EACH CASE ENDS-WITH ASIDE TOOL OR AIR HOSE CONDITIONS-CASES 01 THRU 08 APPLY TO ALL SIZES HUCK STUMP TYPE SHEAR PINS,HI-SHEAR RIVETS OR SIMILAR IN INTERFERENCE FIT HOLES. CASES 09 AND 10 APPLY TO HUCK PULL TYPE SHEAR PINS OR SIMILAR TO 3/8 INCH DIAMETER,ALL LENGTHS AND HUCK GUN MODEL 352,200 OR SIMILAR.FASTENER INSTALLED IN EXISTING HOLE. CASE 01 REMOVE AND INSTALL HI-SHEAR FLUSH HEAD RIVET,1-MAN OPERATION,FIRST FASTENER 3580 1070 02 REMOVE AND INSTALL HI-SHEAR FLUSH HEAD RIVET,1-MAN OPERATION,ADDITIONAL FASTENER 3080 1000 03 REMOVE AND INSTALL HI-SHEAR FLAT HEAD RIVET,1-MAN OPERATION,FIRST FASTENER 04 REMOVE AND INSTALL HI-SHEAR FLAT HEAD RIVET,1-MAN OPERATION,ADDITIONAL FASTENER 5010 05 REMOVE AND INSTALL HI-SHEAR FLUSH HEAD RIVET,2-MAN OPERATION,FIRST FASTENER 1620 06 REMOVE AND INSTALL HI-SHEAR FLUSH HEAD RIVET,2-MAN OPERATION,ADDITIONAL FASTENER 4510 07 REMOVE AND INSTALL HI-SHEAR FLAT HEAD RIVET,2-MAN OPERATION,FIRST FASTENER 1550 08 REMOVE AND INSTALL HI-SHEAR FLAT HEAD RIVET,2-MAN OPERATION,ADDITIONAL FASTENER 1410 09 REMOVE AND INSTALL HUCK LOCK PIN AND COLLAR,FLUSH OR UNIVERSAL,FIRST FASTENER 900 10 REMOVE AND INSTALL HUCK LOCK PIN AND COLLAR,FLUSH OR UNIVERSAL,ADDITIONAL FASTENER
NAA	80X	MAA	ONFFTXX	SNFFSXX	VARIABLE	FASTENER(TURNLOCK),SEAT AND TIGHTEN STARTS-WITH GET TOOL INCLUDES-ALL MOTIONS NECESSARY TO POSITION TOOL TO SLOT IN FASTENER,ALIGN FASTENER,SEAT FASTENER,AND TURN FASTENER TO LOCK ENDS-WITH ASIDE TOOL CONDITIONS-APPLICABLE TO DZUS,CAMLOC,AIRLOC OR SIMILAR FASTENERS TO 3/8 INCH DIAMETER TURNED APPROXIMATELY 90 DEGREES TO LOCK CASE 01 FIRST FASTENER 140 87 02 EACH ADDITIONAL FASTENER
NAA	80X	MAA	ONFFTXX	SNFFUXX	VARIABLE	FASTENER(TURNLOCK),UNLOCK STARTS-WITH GET TOOL INCLUDES-ALL MOTIONS NECESSARY TO POSITION TOOL TO SLOT AND TURN FASTENER TO UNLOCK ENDS-WITH ASIDE TOOL CONDITIONS-APPLICABLE TO DZUS,CAMLOC,AIRLOC, OR SIMILAR FASTENERS TO 3/8 INCH DIAMETER TURNED APPROXIMATELY 90 DEGREES TO UNLOCK CASE 01 FIRST FASTENER 114 61 02 EACH ADDITIONAL FASTENER
FFD	80X	MAA	KALSAXX	SNFLIXX	VARIABLE	LOCK(WEDGE).INSTALL STARTS-WITH GET WEDGE LOCK INCLUDES-ALL MOTIONS NECESSARY TO PUSH STEM DOWN,PLACE LOCK IN HOLE,GET TOOL AND PLACE ON LOCK,AND SECURE LOCK ENDS-WITH ASIDE TOOL 335 186 CASE 01 FIRST WEDGE LOCK 02 EACH ADDITIONAL WEDGE LOCK(DOES NOT INCLUDE GET LOCK OR GET/ASIDE TOOL)



# DEFENSE WORK MEASUREMENT STANDARD TIME DATA ELEMENTS

DATA SOURCE	OCCUP- ATION	QUALITY	SOURCE CODE	DWMSTOP ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION
FFE	80X	MBA	KALSDF5	SNFLR01	231	LOCK(WEDGE), REMOVE WITH PNEUMATIC TOOL STARTS-WITH GET PNEUMATIC TOOL INCLUDES-ALL MOTIONS NECESSARY TO PLACE TOOL ON WEDGE LOCK, RELEASE LOCK, ASIDE TOOL, AND REMOVE WEDGE LOCK ENDS-WITH ASIDE WEDGE LOCK CONDITIONS-DOES NOT INCLUDE TIME TO SET UP PNEUMATIC TOOL
FFD	80X	MAA	KSMHFX	MTLFUXX	VARIABLE	FINDER(HOLE), USE, LEAF TYPE STARTS-WITH GET HOLE FINDER INCLUDES-ALL MOTIONS NECESSARY TO SPREAD LEAVES, PLACE FINDER ON METAL, ENGAGE PEG IN HOLE, HOLD GUIDE FOR DRILLING, AND REMOVE FINDER FROM HOLE ENDS-WITH ASIDE HOLE FINDER CONDITIONS-TIME FOR DRILLING NOT INCLUDED CASE 01 FIRST HOLE 02 EACH ADDITIONAL HOLE
					302 172	
NAA	80X	MAA	SMRHMX	MTLHRXX	VARIABLE	HOLE, REAM WITH HAND REAMER STARTS-WITH REAMER IN HAND INCLUDES-ALL MOTIONS NECESSARY TO MOVE REAMER TO HOLE, POSITION, REAM HOLE, AND REMOVE REAMER FROM HOLE ENDS-WITH REAMER IN HAND CONDITIONS-.003 INCH STOCK REMOVAL FROM HOLE ONE INCH DEEP IN ALUMINUM CASE 01 HOLE TO 3/8 INCH DIAMETER 02 HOLE 3/8-3/4 INCH DIAMETER 03 HOLE 3/4-1 1/2 INCHES DIAMETER
					752 1139 1744	
NAA	80X	MUA	AMRMXX	STLACXX	VARIABLE	ALUMINUM, CUT WITH COMPOUND LEVER SNIPS, PER LINEAR INCH STARTS-WITH GET SNIPS INCLUDES-ALL MOTIONS NECESSARY TO POSITION SNIPS TO CUT POINT AND CUT ONE LINEAR INCH ENDS-WITH ASIDE SNIPS CONDITIONS-"ADDITIONAL INCH" CASES DO NOT INCLUDE GET AND ASIDE SNIPS. APPLICABLE TO CURVED, CIRCULAR OR STRAIGHT CUTS IN 24S, 75S, OR SIMILAR ALUMINUM CASE 01 FIRST LINEAR INCH, ROUGH CUT, MATERIAL .001-.032 INCH THICKNESS 02 EACH ADDITIONAL LINEAR INCH, ROUGH CUT, MATERIAL .001-.032 INCH THICKNESS 03 FIRST LINEAR INCH, ROUGH CUT, MATERIAL .033-.052 INCH THICKNESS 04 EACH ADDITIONAL LINEAR INCH, ROUGH CUT, MATERIAL .033-.052 INCH THICKNESS 05 FIRST LINEAR INCH, FINISH CUT, MATERIAL .001-.032 INCH THICKNESS 06 EACH ADDITIONAL LINEAR INCH, FINISH CUT, MATERIAL .001-.032 INCH THICKNESS 07 FIRST LINEAR INCH, FINISH CUT, MATERIAL .033-.052 INCH THICKNESS 08 EACH ADDITIONAL LINEAR INCH, FINISH CUT, MATERIAL .033-.052 INCH THICKNESS
					166 106 220 160 284 224 402 342	
NAA	80X	MAA	SMRSRX	STLLRXX	VARIABLE	LAMINATION, REMOVE ONE LAYER FROM SHIMSTOCK, TO TWO INCHES WIDE AND SIX INCHES LONG STARTS-WITH GET SHIMSTOCK INCLUDES-ALL MOTIONS NECESSARY TO GET KNIFE, PULL UP CORNER OF LAMINATION, ASIDE KNIFE, GET NEEDLE NOSE PLIERS, PULL LAMINATION FROM STOCK, AND ASIDE STOCK AND LAMINATION ENDS-WITH ASIDE PLIERS CASE 01 REMOVE FIRST SIX LINEAR INCHES FROM SHIMSTOCK 02 REMOVE ADDITIONAL SIX LINEAR INCHES
					841 132	

DEFENSE WORK MEASUREMENT STANDARD TIME DATA ELEMENTS

DATA SOURCE	OCCUP- ATION	QUALITY	SOURCE CODE	DWMSTOP ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION																																			
VF	80X	MAF	2340	STLMCXX	VARIABLE	METAL,CUT WITH SNIPS,PER INCH,SHEET METAL STARTS-WITH REACH TO SNIPS INCLUDES-ALL MOTIONS NECESSARY TO MOVE SNIPS TO METAL,CUT ONE LINEAR INCH,AND ASIDE SNIPS ENDS-WITH RELEASE OF SNIPS CASE 01 FIRST INCH 02 EACH ADDITIONAL INCH																																			
					165 88																																				
FFD	800	MAA	KSMOCXX	TEMHOXX	TABLE	HOLE,DIMPLE(COLD AND HOT) STARTS-WITH OBJECT TO BE DIMPLED IN HAND INCLUDES-ALL THE MOTIONS NECESSARY TO MOVE OBJECT TO DIE PEG,POSITION ON PEG,MOVE LEG TO OPEN AND CLOSE RAM,REMOVE OBJECT FROM DIE PEG ENDS-WITH OBJECT DISENGAGED FROM DIE PEG CONDITIONS-TIMES ARE PER HOLE DIMPLED(CJLD)- ADD TIME FROM ELEMENT 800 BPTMHXX TO OBTAIN TIME FOR HOT DIMPLE(ONE OCCURENCE PER HOLE)																																			
						<table><tr><th></th><th></th><th colspan="3">SPACE BETWEEN HOLES</th></tr><tr><th>WEIGHT OF OBJECT POUNDS</th><th></th><th>TO 1 INCH A</th><th>1 TO 3 INCHES B</th><th>3 TO 9 INCHES C</th></tr><tr><td>TO 2.5</td><td>A</td><td>67</td><td>70</td><td>75</td></tr><tr><td>2.5 TO 10</td><td>B</td><td>71</td><td>74</td><td>79</td></tr><tr><td>10 TO 20</td><td>C</td><td>77</td><td>80</td><td>85</td></tr><tr><td>20 TO 30</td><td>D</td><td>82</td><td>85</td><td>90</td></tr><tr><td>30 TO 40</td><td>E</td><td>88</td><td>91</td><td>96</td></tr></table>			SPACE BETWEEN HOLES			WEIGHT OF OBJECT POUNDS		TO 1 INCH A	1 TO 3 INCHES B	3 TO 9 INCHES C	TO 2.5	A	67	70	75	2.5 TO 10	B	71	74	79	10 TO 20	C	77	80	85	20 TO 30	D	82	85	90	30 TO 40	E	88	91	96
		SPACE BETWEEN HOLES																																							
WEIGHT OF OBJECT POUNDS		TO 1 INCH A	1 TO 3 INCHES B	3 TO 9 INCHES C																																					
TO 2.5	A	67	70	75																																					
2.5 TO 10	B	71	74	79																																					
10 TO 20	C	77	80	85																																					
20 TO 30	D	82	85	90																																					
30 TO 40	E	88	91	96																																					
FFE	800	MAA	KSMIRO1	SITRI01	226	RIVET,INSPECT WITH LIGHT STARTS-WITH GET LIGHT INCLUDES-ALL MOTIONS NECESSARY TO TURN LIGHT ON,INSPECT HEAD OF RIVET,MOVE LIGHT,INSPECT TAIL OF RIVET,AND TURN LIGHT OFF ENDS-WITH ASIDE LIGHT CONDITIONS-BODY MOTIONS REQUIRED TO GET IN POSITION FOR INSPECTION NOT INCLUDED																																			
FFE	800	MAA	KSMIRO2	SITRI02	370	RIVET,INSPECT WITH LIGHT AND MIRROR STARTS-WITH GET INSPECTION LIGHT INCLUDES-ALL MOTIONS NECESSARY TO GET MIRROR, TURN LIGHT ON,PLACE MIRROR AND ADJUST ANGLE, INSPECT ONE END OF RIVET,MOVE LIGHT,INSPECT OTHER END OF RIVET,ASIDE MIRROR,AND TURN LIGHT OFF ENDS-WITH ASIDE INSPECTION LIGHT CONDITIONS-MIRROR REQUIRED TO INSPECT ONLY ONE END OF RIVET.BODY MOTIONS REQUIRED TO GET IN POSITION FOR INSPECTION NOT INCLUDED.																																			
FFE	800	MAA	KALSS20	SJPGS01	424	GUN(RIVET),SET UP,INITIAL STARTS-WITH GET RIVET GUN INCLUDES-ALL MOTIONS NECESSARY TO GET AIR HOSE,ATTACH TO GUN,GET RIVET SET,MOVE SPRING ASIDE,INSTALL SET IN GUN;AND REMOVE AND ASIDE SET,DISCONNECT AIR HOSE,AND ASIDE AIR HOSE ENDS-WITH ASIDE GUN																																			
FFE	800	MAA	KALSS20	SJPGS02	173	GUN(RIVET),SET UP,CHANGE RIVET SET STARTS-WITH RIVET GUN IN HAND INCLUDES-ALL MOTIONS NECESSARY TO MOVE SPRING ASIDE,REMOVE AND ASIDE RIVET SET,GET RIVET SET,MOVE SPRING ASIDE,AND INSTALL RIVET SET ENDS-WITH RELEASE OF SET,GUN IN HAND																																			

# OFFENSE WORK MEASUREMENT STANDARD TIME DATA ELEMENTS

DATA SOURCE	OCCUP- ATION	QUALITY	SOURCE CODE	DWMSTOP ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION
NAA	800	MAA	AMRRRXX	SNFCRXX	VARIABLE	<p>RIVET, CUT PROTRUDING HEAD WITH RIVET GUN AND CHISEL</p> <p>STARTS-WITH GET RIVET GUN</p> <p>INCLUDES-ALL MOTIONS NECESSARY TO GET CHISEL, INSERT IN GUN, GET AND INSTALL SPRING, POSITION CHISEL TO RIVET HEAD, CUT RIVET, AND REMOVE AND ASIDE SPRING AND CHISEL</p> <p>ENDS-WITH ASIDE RIVET GUN</p> <p>CONDITIONS-"EACH ADDITIONAL" CASES INCLUDE POSITION CHISEL AND CUT RIVET ONLY</p> <p>580 CASE 01 FIRST RIVET-ALUMINUM TO 3/16 INCH DIAMETER, OR STEEL OR MONEL TO 1/8 INCH DIAMETER</p> <p>39 02 EACH ADDITIONAL RIVET-ALUMINUM TO 3/16 INCH DIAMETER, OR STEEL OR MONEL TO 1/8 INCH DIAMETER</p> <p>613 03 FIRST MONEL OR STEEL RIVET 5/32-3/16 INCH DIAMETER, OR SCREW OR BOLT TO NO. 10</p> <p>69 04 EACH ADDITIONAL MONEL OR STEEL RIVET 5/32-3/16 INCH DIAMETER, OR SCREW OR BOLT TO NO. 10</p>
NAA	800	MAA	AMRRRXX	SNFORXX	VARIABLE	<p>RIVET, DRIVE OUT WITH HAMMER AND PIN PUNCH, 2-MAN OPERATION</p> <p>STARTS-WITH GET HAMMER</p> <p>INCLUDES-ALL MOTIONS NECESSARY TO GET PIN PUNCH, POSITION TO RIVET SHANK, GET BACKUP BAR, POSITION TO SIDE OF RIVET, AND DRIVE RIVET OUT WITH THREE HAMMER BLOWS</p> <p>ENDS-WITH ASIDE TOOLS</p> <p>CONDITIONS-TIME VALUES SHOWN ARE TOTALS FOR TWO OPERATORS, APPLICABLE TO DRIVING RIVETS OUT IN ACCESSIBLE AREAS WHERE USE OF A BACKUP BAR IS NECESSARY.</p> <p>528 CASE 01 FIRST RIVET</p> <p>248 02 EACH ADDITIONAL RIVET</p>
NAA	800	MUA	AMRBRXX	SNFFRXX	VARIABLE	<p>FASTENER (BLIND), REMOVE, DEUTSCH DRIVE PIN RIVET</p> <p>STARTS-WITH GET HAMMER</p> <p>INCLUDES-ALL MOTIONS NECESSARY TO GET CENTER PUNCH, PUNCH RIVET STEM FOR DRILLING, ASIDE HAMMER AND PUNCH, GET DRILL MOTOR, GET AND INSTALL DRILL, DRILL STEM (PARTIAL), ASIDE DRILL, GET TAP HANDLE, GET AND INSTALL TAP IN HANDLE, TAP STEM, REMOVE TAP FROM HANDLE, ASIDE TAP AND HANDLE, GET DRILL, DRILL PIN, REMOVE DRILL FROM CHUCK, ASIDE DRILL AND DRILL MOTOR, GET ALLEN HEAD SCREW WITH HEX NUT INSTALLED, TURN HEX NUT UP SCREW, GET SPACER, POSITION ON SCREW, INSTALL SCREW IN TAPPED PIN, HOLD SCREW WITH ALLEN WRENCH, TIGHTEN HEX NUT AGAINST SPACER TO REMOVE PIN, PLACE PIN IN VISE, REMOVE SCREW FROM PIN, AND ASIDE TOOLS</p> <p>ENDS-WITH ASIDE TOOLS</p> <p>10400 CASE 01 FIRST FASTENER</p> <p>9640 02 EACH ADDITIONAL FASTENER (DOES NOT INCLUDE SET UP OF DRILL OR TAP)</p>
NAA	800	MAA	AMRBNXX	SNFIRXX	VARIABLE	<p>RIVET (DEUTSCH DRIVE PIN), INSTALL, ALL SIZES</p> <p>STARTS-WITH GET RIVET</p> <p>INCLUDES-ALL MOTIONS NECESSARY TO POSITION RIVET IN HOLE, GET HAMMER, GET HOLLOW PUNCH, POSITION PUNCH OVER RIVET STEM, DRIVE RIVET HEAD FLUSH WITH SURFACE, ASIDE HAMMER AND PUNCH, GET RIVET GUN, GET AND INSTALL FLUSH RIVET SET, GET AND INSTALL SPRING, POSITION GUN TO DRIVE PIN, DRIVE PIN WITH RIVET GUN, REMOVE SPRING, REMOVE SET, AND ASIDE SPRING AND SET</p> <p>ENDS-WITH ASIDE RIVET GUN</p> <p>860 CASE 01 FIRST RIVET</p> <p>210 02 EACH ADDITIONAL RIVET IN A SERIES (DOES NOT INCLUDE GET, SET UP, OR ASIDE TOOLS)</p>

# DEFENSE WORK MEASUREMENT STANDARD TIME DATA ELEMENTS

DATA SOURCE	OCCUP- ATION	QUALITY	SOURCE CODE	DWMSTOP ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION
FFD	800	MAA	KALSDXX	SNFRDXX	VARIABLE	<p>RIVET, DRILL AND REMOVE, COUNTERSUNK OR UNIVERSAL HEAD</p> <p>STARTS-WITH GET DRILL, DRILL BIT PREVIOUSLY INSTALLED</p> <p>INCLUDES-ALL MOTIONS NECESSARY TO PLACE DRILL TO RIVET HEAD, DRILL RIVET, ASIDE DRILL, GET PUNCH, GET HAMMER, PLACE PUNCH TO RIVET SHANK, AND DRIVE RIVET FROM HOLE</p> <p>ENDS-WITH ASIDE TOOLS</p> <p>556 CASE 01 FIRST ALUMINUM RIVET TO 3/16 INCH DIAMETER</p> <p>351 02 EACH ADDITIONAL ALUMINUM RIVET TO 3/16 INCH DIAMETER (NO GET/ASIDE TOOLS)</p> <p>756 03 FIRST ALUMINUM RIVET 5/16 INCH DIAMETER OR LARGER (TIME TO DRILL PILOT HOLE ALLOWED, BUT NO TIME TO CHANGE DRILL BIT)</p> <p>471 04 EACH ADDITIONAL ALUMINUM RIVET 5/16 INCH DIAMETER OR LARGER (NO GET/ASIDE TOOLS)</p> <p>1112 05 FIRST STEEL RIVET 3/32-3/16 IN DIAMETER</p> <p>907 06 EACH ADDITIONAL STEEL RIVET 3/32-3/16 INCH DIAMETER (NO GET/ASIDE TOOLS)</p>
FFD	800	MAA	KALSAXX	SNFRIXX	VARIABLE	<p>RIVET, INSTALL</p> <p>STARTS-WITH GET RIVET GUN AND RIVET(S)</p> <p>INCLUDES-ALL MOTIONS NECESSARY TO PLACE RIVET IN HOLE, PLACE GUN TO RIVET, AND DRIVE RIVET</p> <p>ENDS-WITH ASIDE GUN</p> <p>CONDITIONS-TIME TO SET UP RIVET GUN NOT INCLUDED</p> <p>219 CASE 01 FIRST ALUMINUM RIVET TO 1/4 INCH DIAMETER (ONE OPERATOR-NO BUCKING BAR)</p> <p>144 02 EACH ADDITIONAL ALUMINUM RIVET TO 1/4 INCH DIAMETER (ONE OPERATOR)</p> <p>1026 03 FIRST ALUMINUM RIVET 5/16 INCH OR LARGER DIAMETER (TIME SHOWN IS FOR TWO OPERATORS, USE OF BUCKING BAR REQUIRED)</p> <p>876 04 EACH ADDITIONAL ALUMINUM RIVET 5/16 INCH OR LARGER DIAMETER (TWO OPERATORS, BUCKING BAR REQUIRED)</p> <p>446 05 FIRST STEEL RIVET TO 3/16 INCH DIAMETER (TIME SHOWN IS FOR TWO OPERATORS, USE OF BUCKING BAR REQUIRED)</p> <p>296 06 EACH ADDITIONAL STEEL RIVET TO 3/16 INCH DIAMETER (TWO OPERATORS, USE BUCKING BAR)</p>
FFD	800	MAA	KALSAC1	SNFRIO7	683	<p>RIVET, INSTALL, COLLARED FASTENER, 3/16-1/4 INCH DIAMETER, FIRST RIVET</p> <p>STARTS-WITH GET FASTENER(S)</p> <p>INCLUDES-ALL MOTIONS NECESSARY TO PLACE PIN IN HOLE, GET HAMMER, SEAT PIN, ASIDE HAMMER, GET COLLAR, PLACE ON PIN, GET BUCKING BAR, PLACE TO RIVET, GET AND POSITION GUN, SECURE COLLAR ON PIN, AND ASIDE GUN</p> <p>ENDS-WITH ASIDE BUCKING BAR</p> <p>CONDITIONS-NO TIME ALLOWED FOR SETUP OF GUN</p>
FFD	800	MAA	KALSAC2	SNFRIC8	335	<p>RIVET, INSTALL, COLLARED FASTENER 3/16-1/4 INCH DIAMETER, ADDITIONAL RIVET</p> <p>STARTS-WITH FASTENER IN HAND</p> <p>INCLUDES-ALL MOTIONS NECESSARY TO PLACE PIN IN HOLE, SEAT PIN WITH HAMMER, PLACE COLLAR ON PIN, PLACE BUCKING BAR TO PIN, POSITION GUN TO PIN, AND SECURE COLLAR</p> <p>ENDS-WITH GUN AND BUCKING BAR IN HAND</p> <p>CONDITIONS-NO TIME INCLUDED TO GET/ASIDE FASTENER AND TOOLS</p>

# DEFENSE WORK MEASUREMENT STANDARD TIME DATA ELEMENTS

DATA SOURCE	OCCUP- ATION	QUALITY	SOURCE CODE	DWMSTOP ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION
FFD	800	MAA	KSMRIH1	SNFRI09	703	RIVET(HI-SHEAR),INSTALL,FIRST STARTS-WITH GET RIVET INCLUDES-ALL MOTIONS NECESSARY TO POSITION RIVET IN HOLE,GET HAMMER,SEAT RIVET,ASIDE HAMMER,PLACE COLLAR ON RIVET,GET BUCKING BAR, POSITION TO RIVET,GET RIVET GUN,POSITION ON RIVET,DRIVE RIVET,AND ASIDE GUN ENDS-WITH ASIDE BUCKING BAR CONDITIONS-APPLICABLE TO COLLARED STEEL RIVET 3/32-3/16 INCH DIAMETER.NO TIME ALLOWED FOR SETUP OF RIVET GUN
FFD	800	MAA	KSMRIH2	SNFRI10	466	RIVET(HI-SHEAR),INSTALL,ADDITIONAL STARTS-WITH REGRASP OF RIVET IN HAND INCLUDES-ALL MOTIONS NECESSARY TO POSITION RIVET IN HOLE,STRIKE RIVET WITH HAMMER TO SEAT,REGRASP COLLAR,PLACE ON RIVET,POSITION GUN TO RIVET,POSITION BUCKING BAR AND DRIVE RIVET ENDS-WITH RIVET INSTALLED CONDITIONS-DOES NOT INCLUDE GET AND/OR ASIDE RIVET,COLLAR,HAMMER,GUN,AND BUCKING BAR. APPLICABLE TO COLLARED STEEL RIVET 3/32-3/16 INCH DIAMETER
FFD	800	MAA	KALSAB1	SNFRI11	525	RIVET,INSTALL,BLIND,PULLED,ALL TYPES,FIRST RIVET STARTS-WITH GET RIVET GUN AND RIVETS(S) INCLUDES-ALL MOTIONS NECESSARY TO PLACE RIVET IN GUN,MOVE RIVET TO HOLE,DRIVE RIVET,ASIDE GUN,GET CUTTERS,CUT STEM OF RIVET,ASIDE CUTTERS,GET FILE,AND FILE BURR OFF RIVET STEM ENDS-WITH ASIDE FILE CONDITIONS-NO TIME ALLOWED FOR SETUP OF RIVET GUN
FFD	800	MAA	KALSAB2	SNFRI12	445	RIVET,INSTALL,BLIND,PULLED,ALL TYPES,EACH ADDITIONAL RIVET STARTS-WITH RIVET AND RIVET GUN IN HAND INCLUDES-ALL MOTIONS NECESSARY TO PLACE RIVET IN GUN,PLACE RIVET IN HOLE,DRIVE RIVET,ASIDE GUN,GET CUTTERS,CUT STEM OF RIVET,ASIDE CUTTERS,GET FILE AND REMOVE BURR ENDS-WITH ASIDE FILE CONDITIONS-NO TIME INCLUDED TO GET/ASIDE FASTENER AND TOOLS
FFD	800	MAA	KALSOXX	SNFRKXX	VARIABLE	RIVET,KNOCK OUT,COLLARED FASTENER,ALUMINUM STARTS-WITH GET GUN WITH KNOCKER ATTACHED INCLUDES-ALL MOTIONS NECESSARY TO PLACE KNOCKER TO COLLAR,REMOVE COLLAR,ASIDE GUN,GET HAMMER,DRIVE FASTENER FLUSH WITH SURFACE,GET PUNCH,AND DRIVE FASTENER FROM HOLE ENDS-WITH ASIDE TOOLS CONDITIONS-APPLICABLE TO HI-SHEAR RIVETS, HI-LOCK FASTENERS,AND STUMP BOLTS CASE 01 FIRST COLLARED FASTENER 02 EACH ADDITIONAL COLLARED FASTENER(DOES NOT INCLUDE GET/ASIDE TOOLS)

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# DEFENSE WORK MEASUREMENT STANDARD TIME DATA ELEMENTS

DATA SOURCE	OCCUP- ATION	QUALITY	SOURCE CODE	OWMSTDP ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION
NAA	800	MUA	ONFRDXX	SNFRRXX	VARIABLE	<p>RIVET, REMOVE, SOLID, DRIVEN STARTS-WITH GET TOOL(S) INCLUDES-ALL MOTIONS NECESSARY TO SET UP TOOL(S), CUT RIVET HEAD OR TAIL, ASIDE CUTTING TOOL, GET TOOLS, AND PUNCH OUT RIVET ENDS-WITH ASIDE TOOL(S) CONDITIONS-APPLICABLE TO ALUMINUM OR MONEL RIVET 1/8-3/16 INCH DIAMETER</p> <p>548 CASE 01 FIRST RIVET, CUT WITH HAMMER AND CHISEL AND DRIVE RIVET OUT WITH HAMMER AND PUNCH</p> <p>254 02 EACH ADDITIONAL RIVET USING HAMMER, CHISEL AND PUNCH</p> <p>999 03 FIRST RIVET, CUT WITH POWER CHISEL AND DRIVE RIVET OUT WITH HAMMER AND PUNCH</p> <p>195 04 EACH ADDITIONAL RIVET USING POWER CHISEL, HAMMER, AND PUNCH</p> <p>990 05 FIRST RIVET, CUT WITH POWER CHISEL AND DRIVE RIVET OUT WITH POWER DRIFT</p> <p>217 06 EACH ADDITIONAL RIVET USING POWER CHISEL AND POWER DRIFT</p>
FFD	800	TAA	KSMTPO1	8PTMHXX	VARIABLE	<p>METAL, HEAT WITH DIMPLING DIE STARTS-WITH MALE AND FEMALE DIES IN CONTACT WITH METAL INCLUDES-ALL THE PROCESS TIME NECESSARY TO HEAT METAL ENOUGH TO DIMPLE WITHOUT CRACKING EDGES OF DIMPLE ENDS-WHEN HEAT IS TURNED OFF CONDITIONS-MAGNESIUM AND TITANIUM USED</p> <p>29 CASE 01 METAL .031 INCH THICK</p> <p>32 02 METAL .050 INCH THICK</p> <p>37 03 METAL .064 INCH THICK</p> <p>42 04 METAL .100 INCH THICK</p> <p>35 05 METAL ANY THICKNESS-.031 TO .100 INCH(AVERAGE OF TIMES)</p>
FFD	800	TAA	KSMTPRI	8PTRS01	257	<p>RIVET, SET WITH PNEUMATIC GUN, PROCESS TIME ONLY STARTS-WITH ACTUATION OF RIVET GUN SWITCH INCLUDES-ALL THE TIME NECESSARY TO SET ONE RIVET ENDS-WITH RELEASE OF SWITCH CONDITIONS-APPLICABLE TO COLLARED STEEL RIVET 3/32-3/16 INCH DIAMETER</p>
FFD	800	MAA	KSMJPD1	SSUDS01	3359	<p>DIMPLE MACHINE, SET UP(COLD) STARTS-WITH REACH TO GET ALLEN WRENCH INCLUDES-ALL THE MOTIONS NECESSARY TO GET ALLEN WRENCH AND MALE DIE, LOOSEN AND RUN OUT DIE SET SCREW, REMOVE DIE FROM MACHINE AND ASIDE DIE TO RACK, GET FEMALE DIE, LOOSEN AND RUN OUT SET SCREW, REMOVE AND ASIDE DIE TO RACK, GET PROPER DIE FROM RACK, PLACE IN MACHINE AND RUN IN AND TIGHTEN SET SCREW(MALE AND FEMALE DIE), ACTUATE RAM CLOSED, CHECK DIES FOR GAP, ACTUATE RAM OPEN, GET WRENCH AND LOOSEN RAM ADJUST NUT, ACTUATE RAM CLOSED, ADJUST GAP, OPEN DIMPLING RAM, GET AND PLACE SCRAP METAL OVER DIE, CLOSE AND OPEN DIMPLING RAM, REMOVE AND ASIDE SCRAP, GET RIVET AND PLACE IN DIMPLE HOLE, CHECK FOR PROPER SETTING, ASIDE RIVET, MAKE FINE ADJUSTMENTS ON DIE GAP, ASIDE WRENCH, GET WRENCH, RUN DOWN AND TIGHTEN JAM NUT, ASIDE WRENCH ENDS-WITH ASIDE WRENCH CONDITIONS-TIME IS ALLOWED FOR CHANGING DIES TO HOLE SIZE AND ADJUSTING FOR METAL THICKNESS</p>

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DATA SOURCE	OCCUPATION	QUALITY	SOURCE CODE	OWMSTOP ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION
FFD	800	MAA	KSMJPD2	SSUGA01	1121	GAP(DIE),ADJUST(DIMPLING MACHINE-COLD) STARTS-WITH REACH TO GET WRENCH INCLUDES-ALL THE MOTIONS NECESSARY TO GET WRENCH AND LOOSEN DIE ADJUSTMENT JAM NUT, CLOSE DIMPLING RAM,ADJUST TO PROPER GAP,OPEN DIMPLING RAM,GET METAL SCRAP AND PLACE OVER MALE DIE,CLOSE RAM,OPEN RAM,REMOVE SCRAP FROM DIE AND ASIDE,GET RIVET AND PLACE IN RIVET HOLE,CHECK FOR PROPER SETTING,MAKE FINE ADJUSTMENTS TO DIE GAP,ASIDE RIVET AND WRENCH, GET WRENCH AND RUN DOWN AND TIGHTEN JAM NUT ENDS-WITH ASIDE WRENCH CONDITIONS-THIS ELEMENT COVERS DIE GAP SETTING ONLY
FFF	800	MAA	KSMJPD3	SSUMS01	4624	MACHINE(HOT DIMPLE),SET UP STARTS-WITH REACH TO GET WRENCH INCLUDES-ALL THE MOTIONS NECESSARY TO GET ALLEN WRENCH,LOOSEN HEATER RETAINING SCREW, REMOVE HEATER FROM DIE,SET UP DIMPLE MACHINE, GET AND PLACE HEATER ON DIE,RUN IN AND TIGHTEN CONTROL,ASIDE WRENCH,TURN HEATER ON AND OFF ENDS-WITH TURN HEATER OFF CONDITIONS-ELEMENT INCLUDES TIME TO CHANGE AND ADJUST DIE SET,REMOVE AND INSTALL HEATER DURING PROCESS-USED WHEN HOLE SIZE IN MACHINE IS NOT CORRECT FOR JOB-SEE ELEMENT 800 SSUDS01 FOR SET UP DIMPLE MACHINE
NAA	800	MAA	OTLOCXX	STLOFX	VARIABLE	DIMPLE(COLD),FORM WITH HAND DIMPLER STARTS-WITH REACH TO VISE HANDLE INCLUDES-ALL MOTIONS NECESSARY TO OPEN VISE, GET MALE DIE,PLACE IN VISE,CLOSE VISE,GET PART,POSITION PART TO MALE DIE,GET FEMALE DIE, POSITION DIE TO PART,GET HAMMER,STRIKE FEMALE DIE FOUR BLOWS WITH HAMMER,PALM HAMMER AND DIE,ASIDE PART,ASIDE DIE AND HAMMER,OPEN VISE, REMOVE AND ASIDE MALE DIE,AND CLOSE VISE ENDS-WITH RELEASE OF VISE HANDLE CONDITIONS-APPLICABLE TO USE OF 3/32"-1/4" DIMPLE IN .016"-.064" STAINLESS STEEL, .025"-.051" 24S-0-T3-T4,.025"-.064" 52S,JR .025"-.064" 61S-0-T4 804 CASE 01 FIRST OR SINGLE DIMPLE IN PART TO ONE SQUARE FOOT AREA(ONE OPERATOR) 201 02 EACH ADDITIONAL DIMPLE IN PART TO ONE SQUARE FOOT(ONE OPERATOR) 1356 03 FIRST OR SINGLE DIMPLE IN PART ONE TO NINE SQUARE FEET(TIME SHOWN IS FOR TWO OPERATORS) 308 04 EACH ADDITIONAL DIMPLE IN PART ONE TO NINE SQUARE FEET(TIME SHOWN IS FOR TWO OPERATORS)
NF	804	MAF	3337/38	MOHPPXX	VARIABLE	PIECES, POSITION TO ASSEMBLE PITTSBURGH LOCK SEAM STARTS-WITH SIMO REACH TO PIECES INCLUDES-ALL MOTIONS NECESSARY TO BRING PIECES TOGETHER,ALIGN,CHECK VISUALLY,AND STRIKE WITH HAND TO ASSEMBLE SEAM ENDS-WITH HAND IN CONTACT WITH SEAM 91 CASE 01 SMALL PIECES,TOTAL WEIGHT TO 10 POUNDS ENW 102 02 LARGE PIECES,TOTAL WEIGHT 10-60 POUNDS ENW

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NAA	807	MUA	AMRDFXX	SFACHXX	VARIABLE	<p>HOLE, CUT IN ALUMINUM TO .064 INCH THICKNESS, RECTANGULAR ACCESS HOLE</p> <p>STARTS-WITH GET MEASURING DEVICE</p> <p>INCLUDES-ALL MOTIONS NECESSARY TO GET MARKING INSTRUMENT, LAY OUT HOLE, MEASURE AND MARK FOR RADIUS PUNCH, CENTER PUNCH FOR RADIUS, SET UP AND PUNCH OUT CORNER RADIUS WITH TURRET PUNCH, CUT HOLE WITH PEXTO SHEAR, PLACE MATERIAL IN VISE, AND DEBURR WITH FILE AND EMERY CLOTH</p> <p>ENDS-WITH ACCESS HOLE CUT</p> <p>CONDITIONS-APPLICABLE TO CUTTING ALUMINUM MATERIAL SUCH AS DOUBLER OR FILLER</p> <p>CASE 01 CUT HOLE, PERIMETER TO 16 INCHES</p> <p>02 CUT HOLE, PERIMETER 16-28 INCHES</p> <p>03 CUT HOLE, PERIMETER 28-40 INCHES</p> <p>04 CUT HOLE, PERIMETER 40-52 INCHES</p>
					14330	
					22210	
					28580	
					34110	
NAA	807	MUA	AMRDFXX	SFADFXX	VARIABLE	<p>DOUBLER (OR FILLER), FABRICATE, FLAT CIRCULAR</p> <p>STARTS-WITH GET MEASURING DEVICE</p> <p>INCLUDES-ALL MOTIONS NECESSARY TO GET MARKING INSTRUMENT; MEASURE MATERIAL FOR ROUGH CUT; POSITION MATERIAL TO SHEAR, TURN AND WALK ONE PACE TO SWITCH, TURN SWITCH ON, SHEAR MATERIAL (TWO CUTS), AND TURN MACHINE OFF, OR CLAMP MATERIAL AND SHEAR ON MANUAL SHEAR (TWO CUTS); WALK BEHIND MACHINE; PICK UP MATERIAL; LAY OUT FOR CIRCULAR CUT; POSITION MATERIAL TO BEVERLY SHEAR, CUT CIRCUMFERENCE OF CIRCULAR DOUBLER, ASIDE SCRAP, OR SET UP AND CUT CIRCULAR SHAPE ON BANDSAW; DRESS CIRCUMFERENCE ON SANDER; AND FINAL DRESS WITH HAND FILE AND EMERY CLOTH.</p> <p>AS REQUIRED-SPLIT DOUBLER WITH SHEARS OR BANDSAW AND DRESS SPLIT SURFACES.</p> <p>ENDS-WITH DOUBLER FABRICATED</p> <p>CONDITIONS-(1) MATERIAL IS ALUMINUM TO .064 INCH THICKNESS. (2) WALKING TO AND FROM MACHINES NOT INCLUDED EXCEPT AS INDICATED. (3) ROUGH CUT COMPUTED AT 90 PER CENT USE OF POWER SHEAR AND 10 PER CENT USE OF MANUAL SHEAR. (4) FINAL CUT OF CIRCUMFERENCE COMPUTED AT 90 PER CENT USE OF BEVERLY SHEAR AND 10 PER CENT USE OF BANDSAW.</p> <p>CASE 01 FABRICATE CIRCULAR DOUBLER TO 4 INCHES DIAMETER</p> <p>02 FABRICATE CIRCULAR DOUBLER 4-7 INCHES DIAMETER</p> <p>03 FABRICATE CIRCULAR DOUBLER 7-10 INCHES DIAMETER</p> <p>04 FABRICATE CIRCULAR DOUBLER 10-13 INCHES DIAMETER</p> <p>05 FABRICATE CIRCULAR DOUBLER 13-16 INCHES DIAMETER</p> <p>06 FABRICATE AND SPLIT CIRCULAR DOUBLER TO 4 INCHES DIAMETER</p> <p>07 FABRICATE AND SPLIT CIRCULAR DOUBLER 4-7 INCHES DIAMETER</p> <p>08 FABRICATE AND SPLIT CIRCULAR DOUBLER 7-10 INCHES DIAMETER</p> <p>09 FABRICATE AND SPLIT CIRCULAR DOUBLER 10-13 INCHES DIAMETER</p> <p>10 FABRICATE AND SPLIT CIRCULAR DOUBLER 13-16 INCHES DIAMETER</p>
					9640	
					13830	
					19100	
					22460	
					26860	
					14140	
					19240	
					25670	
					30000	
					35360	



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NAA	807	MUA	AMROFXX	SFAFFXX	VARIABLE	<p>FILLER (OR DOUBLER), FABRICATE, FLAT RECTANGULAR, TO .064 INCH THICK</p> <p>STARTS-WITH GET MEASURING DEVICE</p> <p>INCLUDES-ALL MOTIONS NECESSARY TO GET MARKING INSTRUMENT; LAY OUT RECTANGULAR SHAPE ON MATERIAL; TURN AND WALK TO SWITCH, TURN SWITCH ON, SHEAR MATERIAL (TWO CUTS), AND TURN MACHINE OFF, OR CLAMP MATERIAL AND CUT ON MANUAL SHEAR (TWO CUTS); WALK BEHIND MACHINE; PICK UP MATERIAL; DEBURR EDGES AND RADIUS CORNERS WITH POWER SANDER; AND FINAL DRESS WITH FILE AND EMERY CLOTH.</p> <p>AS REQUIRED-SPLIT FILLER ON SHEAR OR BANDSAW, DEBURR WITH POWER SANDER, AND FINAL DRESS WITH FILE AND EMERY CLOTH.</p> <p>ENDS-WITH FILLER FABRICATED</p> <p>CONDITIONS-(1) TIME FOR WALKING TO AND FROM MACHINES INCLUDED ONLY AS INDICATED. (2) USE OF SHEARS COMPUTED AT 90 PER CENT FOR POWER AND 10 PER CENT FOR MANUAL SHEARS. (3) SPLITTING FILLERS IS COMPUTED AT 80 PER CENT WITH BANDSAW AND 20 PER CENT WITH SHEARS. (4) FIVE PER CENT OF THE SPLIT FILLERS ARE DEBURRED BY POWER SANDER.</p> <p>CASE 01 FABRICATE RECTANGULAR FILLER WITH PERIMETER TO 16 INCHES</p> <p>02 FABRICATE RECTANGULAR FILLER WITH PERIMETER 16-28 INCHES</p> <p>03 FABRICATE RECTANGULAR FILLER WITH PERIMETER 28-40 INCHES</p> <p>04 FABRICATE RECTANGULAR FILLER WITH PERIMETER 40-52 INCHES</p> <p>05 FABRICATE RECTANGULAR FILLER WITH PERIMETER 52-64 INCHES</p> <p>06 FABRICATE RECTANGULAR FILLER WITH PERIMETER 64-76 INCHES</p> <p>07 FABRICATE RECTANGULAR FILLER WITH PERIMETER 76-88 INCHES</p> <p>08 FABRICATE RECTANGULAR FILLER WITH PERIMETER 88-100 INCHES</p> <p>09 FABRICATE AND SPLIT RECTANGULAR FILLER WITH PERIMETER TO 16 INCHES</p> <p>10 FABRICATE AND SPLIT RECTANGULAR FILLER WITH PERIMETER 16-28 INCHES</p> <p>11 FABRICATE AND SPLIT RECTANGULAR FILLER WITH PERIMETER 28-40 INCHES</p> <p>12 FABRICATE AND SPLIT RECTANGULAR FILLER WITH PERIMETER 40-52 INCHES</p> <p>13 FABRICATE AND SPLIT RECTANGULAR FILLER WITH PERIMETER 52-64 INCHES</p> <p>14 FABRICATE AND SPLIT RECTANGULAR FILLER WITH PERIMETER 64-76 INCHES</p> <p>15 FABRICATE AND SPLIT RECTANGULAR FILLER WITH PERIMETER 76-88 INCHES</p> <p>16 FABRICATE AND SPLIT RECTANGULAR FILLER WITH PERIMETER 88-100 INCHES</p>
					8520	
					10580	
					13180	
					15440	
					17500	
					19550	
					21610	
					23670	
					13090	
					16240	
					20000	
					23360	
					26520	
					29660	
					32010	
					35960	
NAA	807	MUA	AMROFXX	SFAHCXX	VARIABLE	<p>HOLE, CUT IN ALUMINUM TO .064 INCH THICKNESS, CIRCULAR ACCESS HOLE</p> <p>STARTS-WITH GET MEASURING DEVICE</p> <p>INCLUDES-ALL MOTIONS NECESSARY TO GET MARKING INSTRUMENT, LAY OUT HOLE, CENTER PUNCH, SET UP AND PUNCH HOLE WITH TURRET PUNCH, CUT HOLE WITH COMPOUND LEVER SNIPS, GET POWER TOOL, INSTALL ROTARY FILE, FINISH HOLE, ASIDE TOOL, AND DRESS HOLE WITH FILE AND EMERY CLOTH</p> <p>ENDS-WITH HOLE CUT</p> <p>CASE 01 CUT HOLE, 2-5 INCHES DIAMETER</p> <p>02 CUT HOLE, 5-8 INCHES DIAMETER</p> <p>03 CUT HOLE, 8-11 INCHES DIAMETER</p> <p>04 CUT HOLE, 11-14 INCHES DIAMETER</p>
					21900	
					32140	
					40450	
					46900	

# DEFENSE WORK MEASUREMENT STANDARD TIME DATA ELEMENTS

DATA SOURCE	OCCUP- ATION	QUALITY	SOURCE CODE	OWNSTOP ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION
FFD	807	MAA	KSMJPF1	4JPTP01	922	TOOLS, PREPARE FOR JO-BOLT INSTALLATION STARTS-WITH TURN TO TOOL CARRIER OR TOOLBOX INCLUDES-ALL MOTIONS NECESSARY TO GET TRAY FROM CARRIER; GET HOOK GAUGE, GUN, AND JO-BOLT SET FROM CARRIER AND PLACE IN TRAY; GET TRAY; TURN TO WORK AREA; PLACE TRAY IN WORK AREA; GET GUN; GET SET; INSTALL SET ON GUN; CONNECT AND DISCONNECT AIR HOSE; REMOVE SET FROM GUN; PLACE GUN AND SET IN TRAY; GET TRAY; TURN TO CARRIER OR TOOLBOX; AND PLACE TOOLS AND TRAY IN CARRIER ENDS-WITH RELEASE OF TRAY
DNA	807	MBA	AMRSJ01	SJPC101	1330	CARTRIDGE(SEALANT), INSTALL IN AND REMOVE FROM GUN STARTS-WITH GET GUN INCLUDES-ALL MOTIONS NECESSARY TO REMOVE BACK OF GUN; GET CARTRIDGE, INSERT IN GUN, REPLACE BACK OF GUN, INSTALL AND CUT TIP, REMOVE BACK OF GUN, REMOVE AND ASIDE CARTRIDGE, CLEAN GUN, AND REPLACE BACK OF GUN ENDS-WITH ASIDE GUN CONDITIONS-APPLICABLE TO AIR OPERATED SEMCO GUN AND TWO OUNCE CARTRIDGE
NAA	807	MAA	AMRQRXX	MNFGRRX	VARIABLE	GROMMET (AND STUD), REMOVE, OZUS FASTENER, MANUAL MOTIONS ONLY STARTS-WITH GET PORTABLE DRILL INCLUDES-ALL MOTIONS NECESSARY TO GET CUTTER, INSTALL IN DRILL CHUCK, POSITION CUTTER TO GROMMET, ASIDE CUTTER, GET BAR, POSITION UNDER STUD HEAD, GET HAMMER, STRIKE STUD, ASIDE BAR AND STUD, GET CHISEL, POSITION TO GROMMET, DRIVE GROMMET OUT WITH HAMMER AND CHISEL, ASIDE HAMMER AND CHISEL, GET ROTARY FILE, INSTALL IN DRILL CHUCK, AND REMOVE ROTARY FILE ENDS-WITH ASIDE DRILL AND ROTARY FILE CONDITIONS-PROCESS TIME FOR CUTTING AND FILING NOT INCLUDED CASE 01 FIRST GROMMET AND STUD 02 EACH ADDITIONAL GROMMET AND STUD

2155  
712

DEFENSE WORK MEASUREMENT STANDARD TIME DATA ELEMENTS

DATA SOURCE	OCCUP-ATION	QUALITY	SOURCE CODE	DWMSTOP ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION
NAA	807	MUA	ONFSDXX	SNFCCXX	VARIABLE	<p>COLLAR,CUT FROM DRAW TYPE SHEAR PIN  STARTS-WITH GET TOOL(S) TO CUT COLLAR  INCLUDES-ALL MOTIONS NECESSARY TO POSITION  TOOL TO COLLAR,CUT COLLAR,AND ASIDE TOOL(S).  CASES 01-08 ALSO INCLUDE DRIVE PIN OUT WITH  HAMMER AND DRIFT.  ENDS-WITH RELEASE OF TOOLS  CONDITIONS-ADDITIONAL PIECES DO NOT INCLUDE  GET AND ASIDE TOOLS.APPLICABLE TO HUCK PULL  TYPE SHEAR PIN OR SIMILAR TO 3/8 INCH  DIAMETER,ANY LENGTH</p> <p>616 CASE 01 CUT FIRST COLLAR WITH HUCK GUN MODEL  352,200,OR SIMILAR AND DRIVE OUT PIN</p> <p>358 02 CUT EACH ADDITIONAL COLLAR WITH HUCK  GUN AND DRIVE OUT PIN</p> <p>621 03 CUT FIRST COLLAR WITH BOLT CUTTER AND  DRIVE OUT PIN(BOLT CUTTER EQUIPPED  WITH JAWS SPECIALLY DESIGNED TO CUT  HUCK COLLAR)</p> <p>317 04 CUT EACH ADDITIONAL COLLAR WITH BOLT  CUTTER AND DRIVE OUT PIN</p> <p>1081 05 CUT FIRST COLLAR WITH RIVET GUN AND  CHISEL,DRIVE OUT PIN(INCLUDES  ATTACH AND REMOVE CHISEL)</p> <p>294 06 CUT EACH ADDITIONAL COLLAR WITH RIVET  GUN AND CHISEL,AND DRIVE OUT PIN</p> <p>935 07 CUT FIRST COLLAR WITH HAMMER AND  CHISEL,AND DRIVE PIN OUT</p> <p>611 08 CUT EACH ADDITIONAL COLLAR WITH HAMMER  AND CHISEL,AND DRIVE PIN OUT</p> <p>186 09 CUT FIRST COLLAR WITH HUCK GUN MODEL  352,200 OR SIMILAR</p> <p>125 10 CUT EACH ADDITIONAL COLLAR WITH HUCK  GUN</p> <p>171 11 CUT FIRST COLLAR WITH BOLT CUTTER WITH  JAWS SPECIALLY DESIGNED FOR REMOVAL OF  HUCK COLLARS</p> <p>84 12 CUT EACH ADDITIONAL COLLAR WITH BOLT  CUTTER</p> <p>641 13 CUT FIRST COLLAR WITH RIVET GUN AND  CHISEL(INCLUDES ATTACH AND REMOVE  CHISEL BLADE)</p> <p>45 14 CUT EACH ADDITIONAL COLLAR WITH RIVET  GUN AND CHISEL</p> <p>680 15 CUT FIRST COLLAR WITH HAMMER AND  CHISEL</p> <p>472 16 CUT EACH ADDITIONAL COLLAR WITH HAMMER  AND CHISEL</p>
NAA	807	MAA	AMRAN17	SNFFI01	497	<p>FASTENER(ANCHORED),INSTALL MISSING FLOATING  OR CHANNEL NUT ONLY,ALL TYPES,FIRST PIECE  STARTS-WITH GET NUT PLATE ASSEMBLY  INCLUDES-ALL MOTIONS NECESSARY TO GET NUT  PLATE ASSEMBLY,POSITION FOR NUT REMOVAL,GET  DUCK BILL PLIERS,BEND TWO TABS WITH PLIERS,  ASIDE PLATE(NUT DROPS TO BENCH),GET NUT,  POSITION TO EXISTING ATTACHED PLATE,HOLD  FIRMLY IN PLACE,BEND TABS AROUND PLATE,ASIDE  PLIERS,CHECK ALIGNMENT AND FREENESS OF NUT  ENDS-WITH RELEASE NUT</p>
NAA	807	MAA	AMRAN18	SNFFI02	454	<p>FASTENER(ANCHORED),INSTALL MISSING FLOATING  OR CHANNEL NUT ONLY,ALL TYPES,ADDITIONAL PIECE  STARTS-WITH GET NUT PLATE ASSEMBLY  INCLUDES-ALL MOTIONS NECESSARY TO GET NUT  PLATE ASSEMBLY,POSITION FOR NUT REMOVAL,  USE DUCK BILL PLIERS TO BEND TWO TABS,ASIDE  PLATE(NUT DROPS TO BENCH),GET NUT,POSITION TO  EXISTING ATTACHED PLATE,HOLD FIRMLY IN PLACE  AND BEND TWO TABS OVER PLATE,ASIDE PLIERS,  CHECK ALIGNMENT AND FREENESS OF NUT  ENDS-WITH RELEASE NUT</p>

# DEFENSE WORK MEASUREMENT STANDARD TIME DATA ELEMENTS

DATA SOURCE	OCCUP- ATION	QUALITY	SOURCE CODE	DWMSTD ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION
NAA	807	MUA	AMRAN34	SNFFI03	3610	FASTENER(ANCHORED), INSTALL CAMLOC OR AIRLOC RECEPTACLE, OR DZUS SPRING, 1-MAN OPERATION, FIRST PIECE STARTS-WITH GET CLECO AND CLECO PLIERS INCLUDES-ALL MOTIONS NECESSARY TO INSTALL AND REMOVE CLECO(PLIER OR WING TYPE), HOLD FASTENER IN PLACE, INSTALL AND BUCK RIVET(RIVET GUN OR PORTABLE PNEUMATIC "C" SQUEEZE), MICROSHAVE RIVET, PLUG IN AND OUT AIR HOSE FOR REAM, REAM HOLE FOR MISALIGNMENT, PLUG IN AND OUT AIR HOSE (DUE TO REAM), INSTALL AND BUCK SECOND RIVET, MICROSHAVE RIVET ENDS-WITH ASIDE MICROSHAVER CONDITIONS-PLUG IN AND OUT FOR REAM, REAM HOLE FOR ALIGNMENT AND PLUG IN AND OUT AIR HOSE TO GUN DUE TO REAM ARE REQUIRED 10 PERCENT OF THE TIME. MICROSHAVE RIVETS REQUIRED 75 PERCENT OF THE TIME. MICROSHAVER IS PFAHLER MODEL 33A OR MICRO MILLER MODEL BRM
NAA	807	MUA	AMRAN35	SNFFI04	1840	FASTENER(ANCHORED), INSTALL CAMLOC OR AIRLOC RECEPTACLE, OR DZUS SPRING, 1-MAN OPERATION, ADDITIONAL PIECE STARTS-WITH GET CLECO AND CLECO PLIERS INCLUDES-ALL MOTIONS NECESSARY TO INSTALL AND REMOVE CLECO(PLIER OR WING TYPE), HOLD FASTENER IN PLACE, INSTALL AND BUCK RIVET(RIVET GUN OR PORTABLE PNEUMATIC "C" SQUEEZE), MICROSHAVE RIVET, PLUG IN AND OUT AIR HOSE FOR REAM, REAM HOLE FOR MISALIGNMENT, PLUG IN AND OUT AIR HOSE (DUE TO REAM), INSTALL AND BUCK SECOND RIVET, MICROSHAVE RIVET ENDS-WITH ASIDE MICROSHAVER CONDITIONS-PLUG IN AND OUT AIR HOSE FOR REAM, REAM HOLE FOR ALIGNMENT AND PLUG IN AND OUT AIR HOSE TO GUN DUE TO REAM ARE REQUIRED 10 PERCENT OF THE TIME. MICROSHAVE RIVETS REQUIRED 75 PERCENT OF THE TIME. MICROSHAVER IS PFAHLER MODEL 33A OR MICRO MILLER MODEL BRM
NAA	807	MUA	AMRAN36	SNFFI05	5770	FASTENER(ANCHORED), INSTALL CAMLOC OR AIRLOC RECEPTACLE, OR DZUS SPRING, 2-MAN OPERATION, FIRST PIECE STARTS-WITH GET CLECO AND CLECO PLIERS INCLUDES-ALL MOTIONS NECESSARY TO INSTALL AND REMOVE CLECO(PLIER OR WING TYPE), HOLD FASTENER IN PLACE, INSTALL AND BUCK RIVET, MICROSHAVE RIVET, PLUG IN AND OUT AIR HOSE FOR REAM, REAM HOLE FOR MISALIGNMENT, PLUG IN AND OUT AIR HOSE TO GUN DUE TO REAM, INSTALL AND BUCK SECOND RIVET, MICROSHAVE RIVET ENDS-WITH ASIDE MICROSHAVER CONDITIONS-PLUG IN AND OUT AIR HOSE FOR REAM, REAM HOLE, AND PLUG IN AND OUT AIR HOSE TO GUN DUE TO REAM ARE REQUIRED 10 PER- CENT OF THE TIME. MICROSHAVE RIVETS REQUIRED 75 PERCENT OF THE TIME. MICROSHAVER MODEL 33A OR MICRO MILLER MODEL BRM

# DEFENSE WORK MEASUREMENT STANDARD TIME DATA ELEMENTS

DATA SOURCE	OCCUP- ATION	QUALITY	SOURCE CODE	DWMSTD ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION
NAA	807	MUA	AMRAN37	SNFFI06	3250	FASTENER(ANCHORED), INSTALL CAMLOC OR AIRLOC RECEPTACLE OR OZUS SPRING, 2-MAN OPERATION, ADDITIONAL STARTS-WITH GET CLECO AND CLECO PLIERS INCLUDES-ALL THE MOTIONS NECESSARY TO INSTALL AND REMOVE CLECO(PLIER OR WING TYPE), HOLD FASTENER IN PLACE, PLUG IN AND OUT AIR HOSE FOR REAM, REAM HOLE FOR MISALIGNMENT, PLUG IN AND OUT AIR HOSE TO GUN, INSTALL AND BUCK SECOND RIVET, MICROSHAVE RIVET ENDS-WITH ASIDE MICROSHAVER CONDITIONS-PLUG IN AND OUT AIR HOSE FOR REAM, REAM HOLE, AND PLUG IN AND OUT AIR HOSE TO GUN DUE TO REAM ARE REQUIRED 10 PERCENT OF THE TIME. MICROSHAVE RIVETS REQUIRED 75 PERCENT OF THE TIME. MICROSHAVER MODEL PFAHLER MODEL 33A OR MICRO MILLER MODEL 8RM
NAA	807	MUA	CMRAN01	SNFFI07	18850	FASTENER(ANCHORED), INSTALL CHANNEL NUT ASSEMBLY WITH BLIND RIVETS, FIRST OR SINGLE THREE-NUT LENGTH STARTS-WITH GET LENGTH OF CHANNEL INCLUDES-ALL MOTIONS NECESSARY TO CUT CHANNEL TO LENGTH WITH COMPOUND LEVER SNIPS, DEBURR CHANNEL END WITH FILE, MEASURE AND MARK HOLE LOCATIONS, CENTER PUNCH HOLE LOCATIONS, SET UP PORTABLE DRILL, DRILL HOLES, DEBURR HOLES WITH HAND HELD DRILL BIT, INSTALL TEMPORARY SCREWS WITH SCREWDRIVER, SET UP RIVET GUN, INSTALL BLIND RIVETS AND REMOVE TEMPORARY SCREWS ENDS-WITH ASIDE SCREWS AND SCREWDRIVER
NAA	807	MUA	CMRANXX	SNFFI08	4530	FASTENER(ANCHORED), INSTALL CHANNEL NUT ASSEMBLY WITH BLIND RIVETS, EACH ADDITIONAL THREE-NUT LENGTH STARTS-WITH MEASURE FOR ADDITIONAL HOLES INCLUDES-ALL MOTIONS NECESSARY TO MEASURE AND MARK FOR ADDITIONAL HOLES, CENTER PUNCH, DRILL AND DEBURR ADDITIONAL HOLES, SECURE WITH SCREW, INSTALL BLIND RIVET AND REMOVE SCREW ENDS-WITH ASIDE SCREW
NAA	807	MUA	CMRAN03	SNFFI09	14970	FASTENER(ANCHORED), INSTALL CHANNEL NUT ASSEMBLY TO EXISTING HOLES WITH BLIND RIVETS, FIRST OR SINGLE THREE-NUT LENGTH STARTS-WITH GET LENGTH OF CHANNEL INCLUDES-ALL MOTIONS NECESSARY TO CUT CHANNEL TO LENGTH WITH COMPOUND LEVER SNIPS, DEBURR CHANNEL END WITH FILE, INSTALL TWO TEMPORARY SCREWS WITH SCREWDRIVER, SET UP DRILL, DRILL HOLES FOR RIVETS, COUNTERSINK HOLES, INSTALL TWO BLIND RIVETS, AND REMOVE TEMPORARY SCREWS ENDS-WITH ASIDE SCREWS AND SCREWDRIVER
NAA	807	MUA	CMRAN04	SNFFI10	2880	FASTENER(ANCHORED), INSTALL CHANNEL NUT ASSEMBLY TO EXISTING HOLES WITH BLIND RIVETS, EACH ADDITIONAL THREE-NUT LENGTH STARTS-WITH INSTALL ONE TEMPORARY SCREW INCLUDES-ALL MOTIONS NECESSARY TO DRILL AND COUNTERSINK ONE HOLE, INSTALL BLIND RIVET, AND REMOVE TEMPORARY SCREW ENDS-WITH ASIDE SCREW

DEFENSE WORK MEASUREMENT STANDARD TIME DATA ELEMENTS

DATA SOURCE	OCCUP- ATION	QUALITY	SOURCE CODE	DWMSTOP ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION
NAA	807	MUA	AMRAN30	SNFF111	5390	<p>FASTENER(ANCHORED), INSTALL NUT PLATE, 1-MAN OPERATION, ALL TYPES, FIRST PIECE STARTS-WITH GET TOOLS INCLUDES-ALL MOTIONS NECESSARY TO SECURE FASTENER WITH SCREW, INSTALL RIVET(WITH RIVET GUN AND BUCKING BAR OR PORTABLE PNEUMATIC "C" SQUEEZE), MICROSHAVE RIVET, INSTALL ADDITIONAL RIVET, PLUG IN AND OUT AIR HOSE FOR REAM, REAM HOLE FOR MISALIGNMENT, PLUG IN AND OUT AIR HOSE DUE TO REAM, MICROSHAVE SECOND RIVET ENDS-WITH ASIDE MICROSHAVER CONDITIONS-REAM HOLE FOR MISALIGNMENT REQUIRED 10 PERCENT OF THE TIME. MICROSHAVE RIVETS REQUIRED 75 PERCENT OF THE TIME. MICROSHAVER MODEL 33A OR MICRO MILLER MODEL 8RM.</p>
NAA	807	MUA	AMRAN31	SNFF112	3180	<p>FASTENER(ANCHORED), INSTALL NUT PLATE, 1-MAN OPERATION, ALL TYPES, ADDITIONAL STARTS-WITH GET SCREW TO SECURE FASTENER INCLUDES-ALL MOTIONS NECESSARY TO SECURE FASTENER WITH SCREW, INSTALL RIVETS, MICROSHAVE RIVETS, AND REAM HOLE TO CORRECT MISALIGNMENT AS NECESSARY ENDS-WITH ASIDE MICROSHAVER CONDITIONS-NO TIME INCLUDED FOR TOOL SETUP. REAM HOLE FOR MISALIGNMENT REQUIRED 10 PERCENT OF THE TIME. MICROSHAVE RIVETS REQUIRED 75 PERCENT OF THE TIME. MICROSHAVER MODEL 33A OR MICRO MILLER MODEL 8RM USED.</p>

# DEFENSE WORK MEASUREMENT STANDARD TIME DATA ELEMENTS

DATA SOURCE	OCCUP- ATION	QUALITY	SOURCE CODE	DWMSTD ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION
MMA	807	MUA	AMRANXX	SNFFPXX	VARIABLE	FASTENER (ANCHORED), PREPARE HOLE AND INSTALL STARTS-WITH MEASURE FOR HOLE LOCATION INCLUDES-ALL MOTIONS NECESSARY TO MEASURE AND MARK FOR HOLE LOCATION, CENTER PUNCH LOCATION, DRILL HOLE, DEBURR HOLE, SECURE NUT PLATE WITH SCREW, DRILL HOLE, INSTALL FIRST RIVET; DRILL HOLE, INSTALL ADDITIONAL RIVET; AND REMOVE SCREW ENDS-WITH ASIDE TOOLS
					16780	CASE 01 PREPARE HOLE AND INSTALL NUT PLATE, ALL TYPES, FIRST PIECE
					5140	02 PREPARE HOLE AND INSTALL NUT PLATE, ALL TYPES, ADDITIONAL PIECE
					19690	03 PREPARE HOLE AND INSTALL NUT PLATE, ALL TYPES, 2-MAN OPERATION, FIRST PIECE
					7300	04 PREPARE HOLE AND INSTALL NUT PLATE, ALL TYPES, 2-MAN OPERATION, ADDITIONAL PIECE
					16480	05 PREPARE HOLE AND INSTALL CAMLOC OR AIRLOC RECEPTACLE OR DZUS SPRING, ALL TYPES, FIRST PIECE
					4550	06 PREPARE HOLE AND INSTALL CAMLOC OR AIRLOC RECEPTACLE OR DZUS SPRING, ALL TYPES, ADDITIONAL PIECE
					18780	07 PREPARE HOLE AND INSTALL CAMLOC OR AIRLOC RECEPTACLE OR DZUS SPRING, ALL TYPES, 2-MAN OPERATION, FIRST PIECE
					6220	08 PREPARE HOLE AND INSTALL CAMLOC OR AIRLOC RECEPTACLE OR DZUS SPRING, ALL TYPES, 2-MAN OPERATION, ADDITIONAL
					2200	09 PREPARE HOLE AND INSTALL FLAT HEAD RIV-NUT, ALL SIZES, FIRST PIECE
					1070	10 PREPARE HOLE AND INSTALL FLAT HEAD RIV-NUT, ALL SIZES, ADDITIONAL PIECE
					4710	11 PREPARE HOLE AND INSTALL FLUSH-HEAD RIV-NUT, ALL SIZES, FIRST PIECE
					1190	12 PREPARE HOLE AND INSTALL FLUSH-HEAD RIV-NUT, ALL SIZES, ADDITIONAL PIECE
					2480	13 PREPARE HOLE AND INSTALL FLAT HEAD DILL NUT, ALL SIZES, FIRST PIECE
					1250	14 PREPARE HOLE AND INSTALL FLAT HEAD DILL NUT, ALL SIZES, ADDITIONAL PIECE
					4990	15 PREPARE HOLE AND INSTALL FLUSH-HEAD DILL NUT, ALL SIZES, FIRST PIECE
					1370	16 PREPARE HOLE AND INSTALL FLUSH-HEAD DILL NUT, ALL SIZES, ADDITIONAL PIECE

# DEFENSE WORK MEASUREMENT STANDARD TIME DATA ELEMENTS

DATA SOURCE	OCCUP- ATTN	QUALITY	SOURCE CODE	DWMSTD ELEMENT	THU VALUE	OPERATION/ELEMENT DESCRIPTION
NAA	807	MUA	AMRRARXX	SNFFRX	VARIABLE	FASTENER(ANCHORED), REPLACE STARTS-WITH REACH TO TOOL OR FASTENER INCLUDES-ALL MOTIONS REQUIRED TO REMOVE AND INSTALL VARIOUS TYPES OF ANCHORED FASTENERS ENDS-WITH REPLACEMENT FASTENER INSTALLED
					7037	CASE 01 REMOVE AND INSTALL NUT PLATE, 1-MAN OPERATION, ALL TYPES, FIRST PIECE
					3882	02 REMOVE AND INSTALL NUT PLATE, 1-MAN OPERATION, ALL TYPES, ADDITIONAL PIECE
					9677	03 REMOVE AND INSTALL NUT PLATE, ALL TYPES, 2-MAN OPERATION, FIRST PIECE
					5782	04 REMOVE AND INSTALL NUT PLATE, ALL TYPES, 2-MAN OPERATION, ADDITIONAL PIECE
					5257	05 REMOVE AND INSTALL CAMLOC OR AIRLOC RECEPTACLE OR DZUS SPRING, ALL TYPES, 1-MAN OPERATION, FIRST PIECE
					2542	06 REMOVE AND INSTALL CAMLOC OR AIRLOC RECEPTACLE OR DZUS SPRING, ALL TYPES, 1-MAN OPERATION, ADDITIONAL PIECE
					7417	07 REMOVE AND INSTALL CAMLOC OR AIRLOC RECEPTACLE OR DZUS SPRING, ALL TYPES, 2-MAN OPERATION, FIRST PIECE
					3952	08 REMOVE AND INSTALL CAMLOC OR AIRLOC RECEPTACLE OR DZUS SPRING, ALL TYPES, 2-MAN OPERATION, ADDITIONAL PIECE
					1158	09 REMOVE AND INSTALL RIV-NUT, ALL TYPES, FIRST PIECE
					804	10 REMOVE AND INSTALL RIV-NUT, ALL TYPES, ADDITIONAL PIECE
					1665	11 REMOVE AND INSTALL DILL NUT, ALL TYPES FIRST PIECE
					1456	12 REMOVE AND INSTALL DILL NUT, ALL TYPES ADDITIONAL PIECE
					726	13 REMOVE AND INSTALL FLOATING OR CHANNEL NUT ONLY, FIRST PIECE
					635	14 REMOVE AND INSTALL FLOATING OR CHANNEL NUT ONLY, ADDITIONAL PIECE
					17699	15 REMOVE AND INSTALL CHANNEL NUT ASSEMBLY THREE-NUT LENGTH OF CHANNEL, FIRST
					3787	16 REMOVE AND INSTALL CHANNEL NUT ASSEMBLY, THREE-NUT LENGTH OF CHANNEL, ADDITIONAL
NAA	807	MBA	AMRQNX	SNFGIX	VARIABLE	GROMMET (CAMLOC), INSTALL WITH SNAP RING STARTS-WITH GET SNAP RING TOOL INCLUDES-ALL MOTIONS NECESSARY TO REMOVE RUBBER PROTECTIVE KNOB, GET MANDREL, GET SNAP RING, POSITION SNAP RING ON MANDREL, POSITION SNAP RING TOOL OVER MANDREL, GET GROMMET, POSITION TO HOLE, INSTALL SNAP RING ON GROMMET, AND PLACE RUBBER PROTECTIVE KNOB ON TOOL ENDS-WITH ASIDE TOOLS CONDITIONS-APPLICABLE TO 4002 GROMMET SERIES WITH R4G OR 40G26-1 SNAP RINGS CASE 01 FIRST GROMMET CASE 02 EACH ADDITIONAL GROMMET
					744	
					311	
NAA	807	MAA	AMRQRXX	SNFGRX	VARIABLE	GROMMET (CAMLOC), REMOVE, SECURED WITH SNAP RING STARTS-WITH GET TOOL TO REMOVE SNAP RING INCLUDES-ALL MOTIONS NECESSARY TO REMOVE SNAP RING USING POINTED TOOL AND PLIERS, AND TO REMOVE GROMMET ENDS-WITH ASIDE GROMMET CASE 01 FIRST GROMMET AND SNAP RING CASE 02 EACH ADDITIONAL GROMMET AND SNAP RING
					752	
					672	



# DEFENSE WORK MEASUREMENT STANDARD TIME DATA ELEMENTS

DATA SOURCE	CCUP- ATION	QUALITY	SOURCE CODE	OWNSTOP ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION
NAA	807	MAA	AMRQNX	SNFIGXX	VARIABLE	<p>GROMMET (AND STUD), INSTALL, DZUS FASTENER, USING PNEUMATIC FLOOR DIMPLER</p> <p>STARTS-WITH GET MATERIAL</p> <p>INCLUDES-ALL MOTIONS NECESSARY TO MOVE MATERIAL TO BOTTOM ANVIL OF DIMPLER, GET GROMMET, POSITION GROMMET IN HOLE, POSITION MATERIAL TO BOTTOM ANVIL, GET STUD, POSITION IN GROMMET, ACTUATE MACHINE WITH FOOT PEDAL, AND CHECK SECURITY OF INSTALLATION</p> <p>ENDS-WITH ASIDE MATERIAL</p> <p>CASE 01 FIRST DZUS FASTENER</p> <p>02 EACH ADDITIONAL DZUS FASTENER IN SAME PIECE OF MATERIAL</p>
					315 255	
NAA	807	MAA	SMFNNX	SNFINXX	VARIABLE	<p>NUT (CHANNEL), INSTALL</p> <p>STARTS-WITH GET CHANNEL NUT ASSEMBLY</p> <p>INCLUDES-ALL MOTIONS NECESSARY TO POSITION CHANNEL, GET DIAGONAL PLIERS, CUT CHANNEL TO LENGTH, ASIDE PLIERS, GET FILE, SMOOTH CUT END, ASIDE FILE, POSITION CHANNEL, INSTALL TWO SCREWS WITH SCREWDRIVER, GET DRILL MOTOR, INSTALL DRILL, DRILL TWO HOLES, REMOVE DRILL, INSTALL COUNTERSINK, COUNTERSINK TWO HOLES, REMOVE COUNTERSINK, ASIDE DRILL MOTOR, GET RIVET GUN, INSTALL SPRING AND SET, INSTALL TWO RIVETS, REMOVE SPRING AND SET FROM RIVET GUN, ASIDE RIVET GUN, AND REMOVE TWO SCREWS</p> <p>ENDS-WITH ASIDE SCREWDRIVER</p> <p>CONDITIONS-APPLICABLE TO DRILLING NO. 45-NO. 14 DIAMETER HOLES IN .063-.090 INCH THICKNESS ALUMINUM AND COUNTERSINKING WITH 1/8-5/32 INCH 100 DEGREE COUNTERSINK. CASE 02 INCLUDES NO SETUP TIME FOR DRILL, COUNTERSINK OR RIVET GUN</p> <p>CASE 01 FIRST TWO-NUT LENGTH OF CHANNEL</p> <p>02 EACH ADDITIONAL ONE-NUT LENGTH OF A CHANNEL (INSTALL AND REMOVE ONE SCREW, DRILL AND COUNTERSINK ONE HOLE, AND INSTALL ONE RIVET)</p>
					5298 1078	
NAA	807	MBA	AMRQNX	SNFISXX	VARIABLE	<p>STUD (AIRLOC), INSTALL, PER STUD</p> <p>STARTS-WITH GET AIRLOC STUD</p> <p>INCLUDES-ALL MOTIONS NECESSARY TO GET PIN, POSITION STUD IN HOLE, POSITION PIN IN STUD SHANK, GET TOOL, AND SECURE PIN IN SHANK</p> <p>ENDS-WITH ASIDE TOOL</p> <p>CASE 01 INSTALL STUD WITH AIRLOC TOOL</p> <p>02 INSTALL STUD WITH PNEUMATIC SQUEEZE</p>
					420 312	
FFD	807	MAA	KSMANA1	SNFNIXX	VARIABLE	<p>NUT (ANCHOR), INSTALL IN EXISTING HOLES, EASY ACCESS</p> <p>STARTS-WITH GET ANCHOR NUT</p> <p>INCLUDES-ALL MOTIONS NECESSARY TO POSITION ANCHOR NUT TO HOLES, GET CLECO PLIERS, GET AND INSTALL CLECO, ASIDE PLIERS, GET RIVET GUN, GET AND INSTALL SET, GET AND INSTALL SPRING, CONNECT AIR HOSE, GET FIRST RIVET, PLACE RIVET IN HOLE, GET BUCKING BAR AND POSITION TO RIVET, POSITION GUN AND DRIVE RIVET, ASIDE BUCKING BAR, MOVE GUN TO ONE SIDE, INSPECT INSTALLATION, GET CLECO PLIERS, REMOVE CLECO, ASIDE PLIERS AND CLECO, GET SECOND RIVET, PLACE IN HOLE, GET AND PLACE BUCKING BAR, MOVE RIVET GUN TO RIVET, DRIVE RIVET, ASIDE BUCKING BAR, DISCONNECT AIR HOSE, ASIDE RIVET GUN, AND INSPECT INSTALLATION</p> <p>ENDS-WITH ASIDE INSPECTION LIGHT</p> <p>CONDITIONS-APPLICABLE TO 3/32-3/16 INCH DIAMETER SOLID HEAD RIVET</p> <p>CASE 01 FIRST ANCHOR NUT</p> <p>02 EACH ADDITIONAL ANCHOR NUT</p>
					2573 1933	

# DEFENSE WORK MEASUREMENT STANDARD TIME DATA ELEMENTS

DATA SOURCE	CCUP- ATION	QUALITY	SOURCE CODE	DWMSTOP ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION
FFD	807	MAA	KSMANA3	SNFNI03	4502	NUT(ANCHOR),INSTALL,DRILL NEW HOLES USING ANCHOR NUT AS DRILL GUIDE,FIRST NUT,EASY ACCESS STARTS=WITH GET ANCHOR NUT INCLUDES=ALL MOTIONS NECESSARY TO POSITION NUT FOR DRILLING,GET DRILL MOTOR,GET AND INSTALL DRILL,CONNECT AIR HOSE,DRILL TWO HOLES, DISCONNECT AIR HOSE,DISASSEMBLE AND ASIDE DRILL,GET AND INSTALL SCREW,INSTALL TWO CLECOS,REMOVE TWO CLECOS,COUNTERSINK TWO HOLES,INSTALL TWO RIVETS,AND REMOVE SCREW ENDS=WITH ASIDE SCREWDRIVER CONDITIONS=APPLICABLE TO DRILLING HOLE TO 3/16 INCH DIAMETER IN ALUMINUM OR MAGNESIUM TO .100 INCH THICKNESS AND INSTALLING 3/32-3/16 INCH DIAMETER SOLID HEAD RIVET
FFD	807	MAA	KSMANA4	SNFNI04	2863	NUT(ANCHOR),INSTALL,EASY ACCESS,DRILL NEW HOLES USING ANCHOR NUT AS DRILL GUIDE,EACH ADDITIONAL NUT STARTS=WITH GET ANCHOR NUT INCLUDES=ALL MOTIONS NECESSARY TO POSITION NUT FOR DRILLING,DRILL TWO HOLES,GET AND INSTALL HOLDING SCREW,INSTALL AND REMOVE TWO CLECOS, COUNTERSINK TWO HOLES,INSTALL TWO RIVETS AND REMOVE HOLDING SCREW ENDS=WITH ASIDE SCREWDRIVER CONDITIONS=APPLICABLE TO DRILLING HOLE TO 3/16 INCH DIAMETER IN ALUMINUM OR MAGNESIUM TO .100 INCH THICKNESS AND INSTALLING 3/32-3/16 INCH DIAMETER SOLID HEAD RIVET
NAA	807	MBA	SMFNN02	SNFNI05	4039	NUT(ANCHOR),INSTALL WITH TWO RIVETS,FIRST NUT (USE DRILL JIG TO LOCATE ATTACH HOLES) STARTS=WITH GET DRILL JIG INCLUDES=ALL MOTIONS NECESSARY TO POSITION JIG IN HOLE,GET DRILL MOTOR,INSTALL DRILL IN CHUCK,DRILL ANCHOR NUT ATTACH HOLE,REPOSITION JIG FOR SECOND HOLE,DRILL HOLE,REMOVE AND ASIDE JIG,REMOVE DRILL,INSTALL COUNTERSINK, COUNTERSINK TWO HOLES,REMOVE COUNTERSINK,ASIDE DRILL MOTOR,GET ANCHOR NUT,POSITION TO HOLES, INSTALL CLECO WITH PLIERS,SET UP RIVET GUN, INSTALL FIRST RIVET,REMOVE CLECO,INSTALL SECOND RIVET,AND REMOVE SPRING AND SET FROM RIVET GUN ENDS=WITH ASIDE TOOLS CONDITIONS=APPLICABLE TO DRILLING NO.4-5-NO.14 DIAMETER HOLES IN .063-.090 INCH THICKNESS ALUMINUM AND COUNTERSINKING WITH A 1/8-5/32 INCH 100 DEGREE COUNTERSINK,ALUMINUM OR MONEL RIVETS 1/8 - 3/16 INCH DIAMETER
NAA	807	MBA	SMFNN03	SNFNI06	1448	NUT(ANCHOR),INSTALL WITH TWO RIVETS,ADDITIONAL NUT(USE DRILL JIG TO LOCATE ATTACH HOLES) STARTS=WITH GET DRILL JIG INCLUDES=ALL MOTIONS NECESSARY TO POSITION JIG IN HOLE,DRILL FIRST HOLE,REPOSITION JIG,DRILL SECOND HOLE,REMOVE JIG,COUNTERSINK HOLES,GET ANCHOR NUT,POSITION TO HOLES,INSTALL CLECO, INSTALL FIRST RIVET,REMOVE CLECO,AND INSTALL SECOND RIVET ENDS=WITH RIVET GUN IN HAND CONDITIONS=DOES NOT INCLUDE ANY SETUP TIME FOR DRILL,COUNTERSINK,OR RIVET GUN.APPLICABLE TO DRILLING NO.4-5-NO.14 DIAMETER HOLES IN .063-.090 INCH THICKNESS ALUMINUM AND COUNTERSINKING WITH 1/8-5/32 INCH 100 DEGREE COUNTERSINK,ALUMINUM OR MONEL RIVETS 1/8 - 3/16 INCH DIAMETER.

# DEFENSE WORK MEASUREMENT STANDARD TIME DATA ELEMENTS

DATA SOURCE	OCCUPATION	QUALITY	SOURCE CODE	DWSTDP ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION
NAA	807	MUA	ONFSD11	SNFPI01	458	PIN(DRAW TYPE SHEAR),INSTALL STARTS-WITH GET COLLAR INCLUDES-ALL MOTIONS NECESSARY TO GET PIN, INSERT IN HOLE,PLACE COLLAR ON PIN,GET SWAGING TOOL,PLACE FINGER ON HEAD OF PIN,PLACE SWAGING TOOL ON PIN,SWAGE COLLAR,AND EXAMINE INSTALLATION ENDS-WITH ASIDE TOOL CONDITIONS-APPLICABLE TO HUCK PULL TYPE SHEAR PIN OR SIMILAR TO 3/8 INCH DIAMETER,ANY LENGTH,AND HUCK GUN MODEL 352,200 OR SIMILAR
NAA	807	MAA	AMRAR54	SNFRFX VARIABLE	229 181	FASTENER(ANCHORED),REMOVE WORN OR STRIPPED FLOATING OR CHANNEL NUT ONLY STARTS-WITH GET DUCKBILL PLIERS INCLUDES-ALL MOTIONS NECESSARY TO GET PLIERS, BEND TWO TABS;AND GET,REMOVE,AND ASIDE NUT ENDS-WITH ASIDE NUT CASE 01 FIRST OR SINGLE NUT 02 EACH ADDITIONAL NUT
NAA	807	MAA	AMRQXX	SNFRSXX VARIABLE	342 288	STUD(AIRLOC),REMOVE PIN WITH AIRLOC TOOL STARTS-WITH GET AIRLOC TOOL INCLUDES-ALL MOTIONS NECESSARY TO POSITION AIRLOC STUD IN TOOL,REMOVE PIN,ASIDE TOOL,AND REMOVE STUD ENDS-WITH ASIDE PIN AND STUD CASE 01 FIRST STUD 02 EACH ADDITIONAL STUD
NAA	807	MAA	AMRQNX	SNFSIXX VARIABLE	215 106	STUD(CAMLOC),INSTALL WITH CAMLOC PLIERS,NO RETAINING WASHER STARTS-WITH GET CAMLOC STUD ASSEMBLY INCLUDES-ALL MOTIONS NECESSARY TO GET CAMLOC PLIERS,POSITION PLIERS TO STUD,COMPRESS SPRING,POSITION STUD IN GROMMET,AND REMOVE PLIERS FROM STUD ENDS-WITH ASIDE PLIERS CASE 01 FIRST STUD ASSEMBLY 02 EACH ADDITIONAL STUD ASSEMBLY
NAA	807	MAA	AMRQ32	SNFSI03	318	STUD(STRESS HEAD CAMLOC),INSTALL,PER STUD STARTS-WITH GET CAMLOC STUD ASSEMBLY INCLUDES-ALL MOTIONS NECESSARY TO POSITION STUD IN HOLE,GET RETAINER RING,POSITION ON STUD,GET HOLLOW DRIVE BAR,POSITION ON RETAINING RING,GET HAMMER,SEAT RETAINING RING, AND VISUALLY INSPECT ASSEMBLY ENDS-WITH ASIDE TOOLS CONDITIONS-APPLICABLE TO 45 STUD AND RETAINER SERIES
NAA	807	MAA	AMRQXX	SNFSRXX VARIABLE	204 116	STUD(CAMLOC),REMOVE,NO RETAINING WASHER STARTS-WITH GET CAMLOC PLIERS INCLUDES-ALL MOTIONS NECESSARY TO RAISE STUD WITH FINGER AND HOLD,POSITION PLIERS UNDER SPRING CUP,COMPRESS SPRING,AND REMOVE STUD FROM GROMMET ENDS-WITH ASIDE STUD AND PLIERS CASE 01 FIRST STUD 02 EACH ADDITIONAL STUD
NAA	807	MAA	AMRQ33	SNFWI01	326	WASHER(SPLIT),INSTALL ON CAMLOC STUD ASSEMBLY STARTS-WITH GET SPLIT WASHER INCLUDES-ALL MOTIONS NECESSARY TO GET PLIERS, GRASP WASHER WITH PLIERS,BEND WASHER TO ENLARGE OPENING,HOLD STUD,PLACE WASHER ON STUD,BEND WASHER TO CLOSE OPENING,AND VISUALLY INSPECT ASSEMBLY ENDS-WITH ASIDE PLIERS CONDITIONS-APPLICABLE TO 2600-SW,2700-SW,AND 4002-SW WASHER SERIES

# DEFENSE WORK MEASUREMENT STANDARD TIME DATA ELEMENTS

DATA SOURCE	OCCUP- ATION	QUALITY	SOURCE CODE	DWMSTOP ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION
NAA	807	MAA	AMRQN34	SNFWI02	274	WASHER(SOLID), INSTALL ON CAMLOC STUD ASSEMBLY STARTS-WITH GET LOCKWASHER INCLUDES-ALL MOTIONS NECESSARY TO GET LOCKWASHER TOOL, POSITION LOCKWASHER IN TOOL, HOLD STUD, INSTALL LOCKWASHER, REMOVE TOOL, AND VISUALLY EXAMINE ASSEMBLY ENDS-WITH ASIDE TOOL CONDITIONS-APPLICABLE TO 2600-LW AND 2755-1 WASHER SERIES
NAA	807	MAA	AMRQR32	SNFWR01	140	WASHER(SPLIT), REMOVE FROM CAMLOC STUD, PER WASHER STARTS-WITH GET PLIERS INCLUDES-ALL MOTIONS NECESSARY TO HOLD CAMLOC STUD, GET WASHER WITH PLIERS, BEND WASHER TO ENLARGE OPENING, AND REMOVE WASHER ENDS-WITH ASIDE WASHER AND PLIERS CONDITIONS-APPLICABLE TO 2600-SW, 2700-SW, AND 4002-SW SERIES WASHERS
FFD	807	TAA	KTLPTCB	BPTAC01	1591	ALUMINUM, CUT WITH DISC, ROUTER OR SIMILAR MOUNTED IN PNEUMATIC GUN, PROCESS TIME ONLY STARTS-WITH CUTTER IN POSITION TO CUT INCLUDES-ALL MOTIONS NECESSARY TO CUT ONE LINEAR INCH OF ALUMINUM SHEET OR TUBING .081 TO .125 INCH THICK ENDS-WITH COMPLETION OF CUT CONDITIONS-APPLICABLE TO 3000 RPM PNEUMATIC GUN
FFD	807	TAA	KTLPTCC	BPTAC02	1985	ALUMINUM, CUT WITH SAW MOUNTED IN PNEUMATIC GUN STARTS-WITH SAW IN POSITION FOR CUTTING INCLUDES-ALL MOTIONS NECESSARY TO CUT ONE LINEAR INCH OF ALUMINUM SHEET OR TUBING TO .250 INCH THICK ENDS-WITH CUT COMPLETED CONDITIONS-APPLICABLE TO 3000 RPM PNEUMATIC GUN AND SAW TWO INCHES IN DIAMETER WITH 40-60 TEETH PER INCH
FFD	807	TAA	KSMHRI2	BPTBS01	50	BOLT(HUCK LOCK), SET WITH PULL TYPE GUN STARTS-WITH ACTUATION OF GUN TRIGGER INCLUDES-ALL THE TIME NECESSARY TO SET ONE HUCK LOCK BOLT ENDS-WITH RELEASE OF TRIGGER
FFD	807	TAA	KSMTPR2	BPTCS01	153	COLLAR(RIVET), SPLIT WITH PNEUMATIC RIVET GUN, PROCESS TIME ONLY STARTS-WITH ACTUATE RIVET GUN SWITCH INCLUDES-ALL THE TIME NECESSARY TO SPLIT ONE RIVET COLLAR ENDS-WITH RELEASE OF SWITCH
FFD	807	TAA	KPTJB13	BPTJI01	49	JO-BOLT, INSTALL WITH PNEUMATIC TOOL STARTS-WITH ACTUATION OF TRIGGER INCLUDES-ALL THE MACHINE TIME NECESSARY TO TURN DOWN AND TIGHTEN ONE JO-BOLT ENDS-WITH RELEASE OF TRIGGER

# DEFENSE WORK MEASUREMENT STANDARD TIME DATA ELEMENTS

DATA SOURCE	GROUP- AYTON	QUALITY	SOURCE CODE	DWMSTOP ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION
NAA	807	TUA	SMRSNXX	SSRSAXX	VARIABLE	<p>SEALANT, APPLY WITH PNEUMATIC SEALANT GUN STARTS-WITH GET GUN INCLUDES-ALL MOTIONS NECESSARY TO PLACE GUN IN VISE, DISCONNECT AIR HOSE, UNSCREW SEALANT CHAMBER, ASIDE PNEUMATIC PISTON, GET SCREWDRIVER AND PUSH PLUNGER DOWN, GET CAN OF SEALANT, PRY LID OFF, GET PUTTY KNIFE, CUT SEALANT FROM CAN, REPLACE LID ON CAN, GET SEALANT IN HAND, KNEAD SEALANT AND PLACE IN GUN, GET SEALANT CHAMBER, SCREW ON GUN, CLEAN SURFACE, REMOVE SCREW, CHECK HOLE DEPTH WITH SCALE, ADJUST PROBE REACH, INSTALL PROBE, POSITION GUN TO PROBE, CONNECT AIR HOSE, APPLY SEALANT TO FOUR LINEAR INCHES, DISCONNECT AND ASIDE GUN, REMOVE PROBE, AND INSTALL SCREW ENDS-WITH ASIDE SCREWDRIVER CONDITIONS-APPLICABLE TO DOW-CORNING SEALANT NO. DC-94-011 OR SIMILAR CASE 01 GET GUN, FILL, AND APPLY SEALANT TO FOUR LINEAR INCHES 02 APPLY SEALANT TO FOUR ADDITIONAL LINEAR INCHES (APPLICATION ONLY)</p>
					29718	
					17030	
NAA	807	MAA	AMRAN54	MTFFIXX	VARIABLE	<p>FASTNER (ANCHORED), INSTALL RIV-NUT, MANUAL MOTIONS ONLY STARTS-WITH GET SQUEEZE TOOL INCLUDES-ALL MOTIONS NECESSARY TO GET SQUEEZE TOOL, POSITION TOOL FOR RIV-NUT, GET RIV-NUT, POSITION TO TOOL AND START THREAD, RUN RIV-NUT DOWN THREAD, BOTTOM RIV-NUT ON THREAD, POSITION RIV-NUT IN HOLE, APPLY PRESSURE TO SEAT NUT, RELEASE HANDLE, REACH TO CRANK KNOB, HOLD TOOL AND UNTHREAD FROM NUT ENDS-WITH ASIDE TOOL CONDITIONS-INCLUDES FLUSH OR FLAT HEAD TO SIZE 10-32, PROCESS TIME NOT INCLUDED. CASE 01 FIRST RIV-NUT 02 EACH ADDITIONAL RIV-NUT</p>
					500	
					440	
NAA	807	MBA	OTFHMXX	STFBXX	VARIABLE	<p>BOLT (HI-LOK), INSTALL WITH MANUAL TOOLS STARTS-WITH GET HANDFUL OF BOLTS (FIRST BOLT) OR UNPALM BOLT (ADDITIONAL BOLT) INCLUDES-ALL MOTIONS NECESSARY TO INSERT BOLT IN HOLE, GET HAMMER, DRIVE BOLT THROUGH HOLE, ASIDE HAMMER, GET COLLAR, PLACE COLLAR ON BOLT, TURN COLLAR ON THREADS BY HAND, GET SPECIAL RATCHET OR RATCHET BOX WRENCH AND ALLEN WRENCH, TIGHTEN COLLAR ON BOLT, AND BREAK COLLAR AWAY ENDS-WITH ASIDE TOOLS CASE 01 FIRST BOLT, BOLT AND COLLAR, NO INTERFERENCE, NOMINAL REACH AND MOVE DISTANCES-18 INCHES 02 EACH ADDITIONAL BOLT, BOLT AND COLLAR NO INTERFERENCE, NOMINAL REACH AND MOVE DISTANCES-18 INCHES 03 FIRST BOLT, BOLT AND COLLAR, SLIGHT INTERFERENCE, NOMINAL REACH AND MOVE DISTANCES-24 INCHES 04 EACH ADDITIONAL BOLT, BOLT AND COLLAR, SLIGHT INTERFERENCE, NOMINAL REACH AND MOVE DISTANCES-24 INCHES 05 FIRST BOLT, BOLT AND COLLAR, DIFFICULT ACCESS, NOMINAL REACH AND MOVE DISTANCES-24 INCHES 06 EACH ADDITIONAL BOLT, BOLT AND COLLAR, DIFFICULT ACCESS, NOMINAL REACH AND MOVE DISTANCES-24 INCHES</p>
					973	
					757	
					1327	
					1007	
					2471	
					2268	

# DEFENSE WORK MEASUREMENT STANDARD TIME DATA ELEMENTS

DATA SOURCE	OCCUP- ATION	QUALITY	SOURCE CODE	OWMSTOP ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION
FFD	307	MAA	KALSAN1	STFB107	473	BOLT(HI=LOK), INSTALL, POWER TOOLS, FIRST STARTS-WITH SIMO GET OF GUN AND BOLT(S) INCLUDES-ALL MOTIONS NECESSARY TO PLACE BOLT IN HOLE, PLACE GUN TO BOLT, INSTALL BOLT, GET COLLAR(S), PLACE COLLAR ON PIN AND START IN THREADS, PLACE GUN ON COLLAR, AND TIGHTEN COLLAR ENDS-WITH ASIDE GUN
FFD	307	MAA	KALSAN2	STFB108	390	BOLT(HI=LOK), INSTALL, POWER TOOLS, ADDITIONAL STARTS-WITH BOLT AND GUN IN HAND INCLUDES-ALL MOTIONS NECESSARY TO MOVE BOLT TO HOLE, POSITION GUN TO BOLT, INSTALL BOLT, GET COLLAR, POSITION COLLAR ON PIN, START THREADS, PLACE GUN ON COLLAR, AND TIGHTEN COLLAR ENDS-WITH GUN IN HAND
NAA	807	MBA	OTFHMXX	STFBRXX	VARIABLE	BOLT(HI=LOK), REMOVE, MANUAL TOOLS STARTS-WITH GET PLIERS(FIRST) OR MOVE PLIERS TO COLLAR(ADDITIONAL) INCLUDES-ALL MOTIONS NECESSARY TO ADJUST PLIERS(CHANNEL LOCK OR SLIP JOINT), PLACE PLIERS ON COLLAR, GET ALLEN WRENCH AND PLACE IN BOLT, TURN COLLAR WITH PLIERS APPROXIMATELY FIVE THREADS, ASIDE PLIERS AND ALLEN WRENCH, UNSCREW COLLAR ONE THREAD BY HAND, ASIDE COLLAR, GET HAMMER AND DRIFT, AND DRIVE BOLT OUT ENDS-WITH ASIDE TOOLS
					1744	CASE 01 FIRST BOLT, BOLT AND COLLAR, NO INTERFERENCE, NOMINAL REACH AND MOVE DISTANCES-18 INCHES
					1476	02 EACH ADDITIONAL BOLT, BOLT AND COLLAR, NO INTERFERENCE, NOMINAL REACH AND MOVE DISTANCES-18 INCHES
					2486	03 FIRST BOLT, BOLT AND COLLAR, SLIGHT INTERFERENCE, NOMINAL REACH AND MOVE DISTANCES-24 INCHES
					2166	04 EACH ADDITIONAL BOLT, BOLT AND COLLAR, MOVE DISTANCES-24 INCHES
					3651	05 FIRST BOLT, BOLT AND COLLAR, DIFFICULT ACCESS, NOMINAL REACH AND MOVE DISTANCES-24 INCHES
					3289	06 EACH ADDITIONAL BOLT, BOLT AND COLLAR, DIFFICULT ACCESS, NOMINAL REACH AND MOVE DISTANCES-24 INCHES
NAA	807	MBA	OTFHMXX	STFCIXX	VARIABLE	COLLAR(HI=LOK BOLT), INSTALL, MANUAL TOOLS STARTS-WITH GET HANDFUL OF COLLARS(FIRST) OR UNPALM COLLAR(ADDITIONAL) INCLUDES-ALL MOTIONS NECESSARY TO TURN COLLAR ON THREADS BY HAND, GET SPECIAL RATCHET OR RATCHET BOX END WRENCH AND ALLEN WRENCH, PLACE TOOL(S) TO BOLT AND COLLAR, TIGHTEN COLLAR, AND BREAK AWAY COLLAR ENDS-WITH ASIDE TOOLS
					706	CASE 01 FIRST COLLAR, NO INTERFERENCE, NOMINAL REACH AND MOVE DISTANCES-18 INCHES
					602	02 EACH ADDITIONAL COLLAR, NO INTER- FERENCE, NOMINAL REACH AND MOVE DISTANCES-18 INCHES
					930	03 FIRST COLLAR, SLIGHT INTERFERENCE, NOMINAL REACH AND MOVE DISTANCES-24 INCHES
					756	04 EACH ADDITIONAL COLLAR, SLIGHT INTERFERENCE, NOMINAL REACH AND MOVE DISTANCES-24 INCHES
					1958	05 FIRST COLLAR, DIFFICULT ACCESS, NOMINAL REACH AND MOVE DISTANCES-24 INCHES
					1804	06 EACH ADDITIONAL COLLAR, DIFFICULT ACCESS, NOMINAL REACH AND MOVE DISTANCES-24 INCHES

DEFENSE WORK MEASUREMENT STANDARD TIME DATA ELEMENTS

DATA SOURCE	OCCUPATION	QUALITY	SOURCE CODE	DWMSTDP ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION
NAA	807	MBA	OTFH4XX	STFCRXX	VARIABLE	<p>COLLAR(HI-LCK BOLT),REMOVE,MANUAL TOOLS  STARTS=WITH GET PLIERS(FIRST) OR MOVE PLIERS  TO COLLAR(ADDITIONAL)  INCLUDES=ALL MOTIONS NECESSARY TO ADJUST  PLIERS(CHANNEL LOCK OR SLIP JOINT),PLACE  PLIERS ON COLLAR,GET ALLEN WRENCH AND PLACE IN  BOLT,TURN COLLAR WITH PLIERS APPROXIMATELY  FIVE THREADS,ASIDE TOOLS,AND UNSCREW COLLAR  ONE THREAD BY HAND  ENDS=WITH ASIDE COLLAR</p> <p>1317 CASE 01 FIRST COLLAR,NO INTERFERENCE,NOMINAL  REACH AND MOVE DISTANCES=18 INCHES</p> <p>1227 02 EACH ADDITIONAL COLLAR,NO  INTERFERENCE,NOMINAL REACH AND MOVE  DISTANCES=18 INCHES</p> <p>2055 03 FIRST COLLAR,SLIGHT INTERFERENCE,  NOMINAL REACH AND MOVE DISTANCES=24  INCHES</p> <p>1917 04 EACH ADDITIONAL COLLAR,SLIGHT  INTERFERENCE,NOMINAL REACH AND MOVE  DISTANCES=24 INCHES</p> <p>3101 05 FIRST COLLAR,DIFFICULT ACCESS,NOMINAL  REACH AND MOVE DISTANCES=24 INCHES</p> <p>2937 06 EACH ADDITIONAL COLLAR,DIFFICULT  ACCESS,NOMINAL REACH AND MOVE  DISTANCES=24 INCHES</p>
NAA	807	MAA	AMRAN52	STFFI01	883	<p>FASTENER(ANCHORED),INSTALL DILL NUT WITH TOOL,  FIRST PIECE  STARTS=WITH GET DILL NUT TOOL  INCLUDES=ALL THE MOTIONS NECESSARY TO GET DILL  NUT TOOL,MOVE TO APPROXIMATE LOCATION,GET DILL  NUT,MOVE NUT TO TOOL,CHECK RATCHET POSITION,  MOVE TOOL WITH NUT TO HOLE,PUSH FIRM,ENGAGE  RATCHET TO NUT SLOT,REGRAASP AND HOLD FIRM,  TIGHTEN NUT(SLEEVE),REMOVE TOOL FROM NUT,ASIDE  TOOL,GET PLIERS TO NUT,CHECK NUT FOR  TIGHTNESS WITH PLIERS,ASIDE PLIERS  ENDS=WITH ASIDE PLIERS  CONDITION=ADJUSTMENT OF RATCHET IS REQUIRED  50 PERCENT OF THE TIME,INCLUDES FLUSH OR  FLAT HEAD TO SIZE 10-32</p>
NAA	807	MAA	AMRAN53	STFFI02	730	<p>FASTENER(ANCHORED),INSTALL DILL NUT WITH TOOL,  ADDITIONAL PIECE  STARTS=WITH GET DILL NUT  INCLUDES=ALL MOTIONS NECESSARY TO GET DILL NUT  TO TOOL,MOVE TOOL WITH NUT TO HOLE,PUSH FIRM,  ENGAGE RATCHET TO NUT SLOT,REGRAASP AND HOLD  FIRM,TIGHTEN NUT(SLEEVE),MOVE TOOL FROM NUT,  CHECK NUT FOR TIGHTNESS USING PLIERS  ENDS=WITH ASIDE PLIERS  CONDITIONS=INCLUDES FLUSH OR FLAT HEAD TO  SIZE 10-32</p>
NAA	807	MUA	AMRAN50	STFFI03	610	<p>FASTENER(ANCHORED),INSTALL RIV-NUT,FIRST PIECE  STARTS=WITH GET SQUEEZE TOOL  INCLUDES=ALL MOTIONS NECESSARY TO GET SQUEEZE  TOOL,GET RIV-NUT,SCREW RIV-NUT ON TOOL,  POSITION RIV-NUT IN HOLE,SQUEEZE TOOL TO  SECURE RIV-NUT,AND REMOVE TOOL FROM RIV-NUT  ENDS=WITH ASIDE TOOL  CONDITIONS=INCLUDES FLUSH OR FLAT HEAD TO  10-32</p>

# DEFENSE WORK MEASUREMENT STANDARD TIME DATA ELEMENTS

DATA SOURCE	OCCUP- ATION	QUALITY	SOURCE CODE	DWMSTD ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION
NAA	807	MUA	AMRAN51	STFFI04	550	FASTENER(ANCHORED),INSTALL RIV-NUT,ADDITIONAL STARTS-WITH GET RIV-NUT,TOOL IN HAND INCLUDES-ALL MOTIONS NECESSARY TO SCREW RIV-NUT ON TOOL,POSITION RIV-NUT IN HOLE, SQUEEZE TOOL HANDLES TO SECURE RIV-NUT,AND REMOVE TOOL FROM RIV-NUT ENDS-WITH TOOL IN HAND CONDITIONS-INCLUDES FLUSH OR FLAT HEAD TO 10-32
NAA	807	MAA	AMRAR52	STFFRXX VARIABLE	782 726	FASTENER(ANCHORED),REMOVE DILL NUT STARTS-WITH GET DILL NUT TOOL INCLUDES-ALL MOTIONS NECESSARY TO GET DILL NUT TOOL,CHECK RATCHET,ADJUST RATCHET IF NECESSARY,POSITION TOOL TO SLOT,LOOSEN NUT SLEEVE,REMOVE TOOL FROM COLLAR,ASIDE TOOL AND COLLAR ENDS-WITH ASIDE TOOL OR COLLAR CONDITION-INCLUDES FLUSH OR FLAT HEAD TO SIZE 10-32,ADJUSTMENT OF RATCHET REQUIRED 50 PERCENT OF THE TIME FOR FIRST NUT. CASE 01 FIRST DILL NUT 02 EACH ADDITIONAL DILL NUT
FFD	807	MBA	KSMBTTX	STFIBXX VARIABLE	826 1029	BOLT(HI-TORQUE),INSTALL WITH PNEUMATIC TOOL, PER BOLT STARTS-WITH GET RIVET GAUGE INCLUDES-ALL MOTIONS NECESSARY TO GAUGE HOLE DEPTH,GET BOLT,PLACE IN HOLE,GET HAMMER,SEAT BOLT,ASIDE HAMMER,START COLLAR ON BOLT BY HAND,GET PNEUMATIC TOOL,PLACE TOOL ON BOLT, TIGHTEN BOLT,SHAKE SHEARED COLLAR FROM TOOL, ASIDE TOOL,AND INSPECT INSTALLATION WITH LIGHT ENDS-WITH ASIDE LIGHT CONDITIONS-TIME FOR SET UP OF PNEUMATIC TOOL NOT INCLUDED CASE 01 INSTALL BOLT IN UNOBSTRUCTED LOCATION 02 INSTALL BOLT IN OBSTRUCTED LOCATION (INSPECTION IS PERFORMED WITH LIGHT AND MIRROR).
FFD	807	MAA	KSMBT11	STFIB03	1069	BOLT(HI-TORQUE),INSTALL WITH HAND TOOLS IN UNOBSTRUCTED LOCATION STARTS-WITH GET RIVET GAUGE INCLUDES-ALL MOTIONS NECESSARY TO GAUGE HOLE TO DETERMINE BOLT LENGTH,GET BOLT,PLACE IN HOLE,GET HAMMER,SEAT BOLT,ASIDE HAMMER,START COLLAR ON BOLT BY HAND,GET ALLEN WRENCH,GET OPEN END WRENCH,PLACE ALLEN WRENCH IN BOLT, PLACE END WRENCH ON COLLAR,TIGHTEN COLLAR, ASIDE SHEARED COLLAR,ASIDE TOOLS,AND INSPECT INSTALLATION WITH LIGHT ENDS-WITH ASIDE INSPECTION LIGHT
FFD	807	MAA	KSMBT13	STFIB04	1535	BOLT(HI-TORQUE),INSTALL WITH HAND TOOLS IN OBSTRUCTED LOCATION STARTS-WITH GET RIVET GAUGE INCLUDES-ALL MOTIONS NECESSARY TO GAUGE HOLE TO DETERMINE BOLT LENGTH,GET BOLT,PLACE IN HOLE,GET HAMMER,SEAT BOLT,ASIDE HAMMER,START COLLAR ON BOLT BY HAND,GET ALLEN WRENCH,GET OPEN END WRENCH,PLACE ALLEN WRENCH IN BOLT, PLACE END WRENCH ON COLLAR,TIGHTEN COLLAR, ASIDE SHEARED COLLAR,ASIDE TOOLS,AND INSPECT INSTALLATION WITH LIGHT AND MIRROR ENDS-WITH ASIDE LIGHT AND MIRROR



# DEFENSE WORK MEASUREMENT STANDARD TIME DATA ELEMENTS

DATA SOURCE	OCCUP- ATION	QUALITY	SOURCE CODE	DWMSTDP ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION
NAA	807	MAA	OTFBJXX	STFIJXX	VARIABLE	<p>JO-BOLT, INSTALL WITH HAND TOOL  STARTS-WITH GET JO-BOLT SELECTOR GAUGE  INCLUDES-ALL MOTIONS NECESSARY TO GAUGE HOLE  DEPTH, ASIDE GAUGE, GET SOCKET, ASSEMBLE AND  ADJUST LOCKSET, POSITION BOLT TO LOCKSET,  POSITION LOCKSET AND BOLT TO HOLE, TIGHTEN  UNTIL BOLT SHEARS, MOVE TOOL AND CHECK BOLT,  DISASSEMBLE AND ASIDE TOOLS  ENDS-WITH ASIDE TOOL  CONDITION-JO-BOLT TO 3/16 INCH DIAMETER, NUT OR  CCS TYPE  CASE 01 FIRST JO-BOLT  02 EACH ADDITIONAL JO-BOLT</p>
					885 455	
NAA	807	MUA	OTFBJXX	STFIJXX	VARIABLE	<p>JO-BOLT, INSTALL WITH ARO JO-BOLT GUN MODEL 7  OR SIMILAR  STARTS-WITH GET JO-BOLT SELECTOR GAUGE  INCLUDES-ALL MOTIONS NECESSARY TO GAUGE HOLE  DEPTH, ASIDE GAUGE, GET JO-BOLT GUN, GET JO-BOLT,  PLACE JO-BOLT IN LOCKSET OF GUN, POSITION GUN  AND JO-BOLT TO HOLE, TIGHTEN JO-BOLT, REMOVE  GUN, DISCARD SHEARED PORTION OF JO-BOLT, AND  CHECK INSTALLATION  ENDS-WITH ASIDE GUN  CONDITIONS-APPLICABLE TO INSTALLATION OF  JO-BOLT TO 3/16 INCH DIAMETER  CASE 01 FIRST JO-BOLT  02 EACH ADDITIONAL JO-BOLT</p>
					461 209	
FFD	807	MAA	KSMJB12	STFIJ03	631	<p>JO-BOLT, INSTALL, OBSTRUCTED, USE JO-BOLT SET  STARTS-WITH GET GAUGE, GUN IN HAND  INCLUDES-ALL MOTIONS NECESSARY TO DETERMINE  GRIP LENGTH WITH HOOK GAUGE, ASIDE GAUGE, GET  JO-BOLT, POSITION IN HOLE, GET JO-BOLT SET,  POSITION TO JO-BOLT, DRIVE JO-BOLT, SHAKE SHANK  FROM SET  ENDS-WITH GUN IN HAND</p>
FFD	807	MUA	KSMJBXX	STFJRXX	VARIABLE	<p>JO-BOLT, REMOVE  STARTS-WITH GET DRILL MOTOR  INCLUDES-ALL MOTIONS NECESSARY TO GET AND  INSTALL DRILL BIT, CONNECT AIR HOSE, MOVE DRILL  TO JO-BOLT, DRILL JO-BOLT HEAD, REMOVE DRILL  BIT, DISCONNECT AIR HOSE, ASIDE DRILL BIT AND  DRILL MOTOR, GET HAMMER, GET PUNCH, PLACE PUNCH  TO DRILLED HEAD, DRIVE OUT SHANK, ASIDE HAMMER,  GET PLIERS, PULL DRILLED HEAD FROM PUNCH AND  ASIDE, ASIDE PLIERS, ASIDE PUNCH, GET SHANK, AND  ASIDE TO TRASH  ENDS-WITH RELEASE SHANK  CASE 01 REMOVE FIRST STEEL JO-BOLT  02 REMOVE EACH ADDITIONAL STEEL JO-BOLT  03 REMOVE FIRST ALUMINUM JO-BOLT  04 REMOVE EACH ADDITIONAL ALUMINUM  JO-BOLT</p>
					2819 2190 1333 704	

# DEFENSE WORK MEASUREMENT STANDARD TIME DATA ELEMENTS

DATA SOURCE	OCCUP- ATION	QUALITY	SOURCE CODE	DWMSTD ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION
NAA	807	MAA	OTFBJXX	STFRJXX	VARIABLE	<p>JO=BOLT, REMOVE STARTS-WITH GET DRILL MOTOR INCLUDES-ALL MOTIONS NECESSARY TO GET DRILL MOTOR, INSTALL DRILL, POSITION DRILL TO BOLT, DRILL OUT BOLT, GET NUT ON DRILL, REMOVE NUT WITH CARE, ASIDE NUT, GET PLIERS TO NUT, ACTUATE MOTOR TO SPIN OUT NUT, ASIDE NUT AND DRILL; OR GET E-Z OUT, ADJUST AND POSITION TO NUT, SEAT FIRMLY ON NUT, REMOVE NUT, DISENGAGE NUT FROM E-Z OUT, ASIDE NUT AND E-Z OUT ENDS-WITH ASIDE TOOLS CONDITION-APPLIES TO JO=BOLT TO 3/16 INCH DIAMETER, NUT OR CCS TYPE</p> <p>1222 CASE 01 REMOVE FIRST JO=BOLT USING DRILL WITH STRAIGHT CHUCK, E-Z OUT NOT REQUIRED</p> <p>617 02 REMOVE EACH ADDITIONAL JO=BOLT USING DRILL WITH STRAIGHT CHUCK, E-Z OUT NOT REQUIRED</p> <p>1598 03 REMOVE FIRST JO=BOLT USING DRILL WITH STRAIGHT CHUCK, USE OF E-Z OUT REQUIRED</p> <p>657 04 REMOVE EACH ADDITIONAL JO=BOLT USING DRILL WITH STRAIGHT CHUCK, USE OF E-Z OUT REQUIRED</p> <p>1423 05 REMOVE FIRST JO=BOLT USING DRILL WITH 90 DEGREE CHUCK, E-Z OUT NOT REQUIRED</p> <p>06 REMOVE EACH ADDITIONAL JO=BOLT USING DRILL WITH 90 DEGREE CHUCK, E-Z OUT NOT REQUIRED</p> <p>1781 07 REMOVE FIRST JO=BOLT USING DRILL WITH 90 DEGREE CHUCK, USE OF E-Z OUT REQUIRED</p> <p>1002 08 REMOVE EACH ADDITIONAL JO=BOLT USING DRILL WITH 90 DEGREE CHUCK, USE OF E-Z OUT REQUIRED</p>
NAA	807	MBA	AMRORXX	STLACXX	VARIABLE	<p>AREA(DAMAGED), CUT AWAY, ALUMINUM ALLOY TO .064 INCH THICKNESS, CIRCULAR AREA STARTS-WITH VISUALLY EXAMINE DAMAGED AREA INCLUDES-ALL MOTIONS NECESSARY TO MEASURE SIZE OF AREA TO BE CUT AWAY, MARK OUTLINE OF PATCH, SET UP AIR POWERED DRILL, DRILL PILOT HOLE, COUNTERBORE FOR ACCESS BY SNIPS, CUT AWAY DAMAGED AREA WITH COMPOUND LEVER SNIPS, SET UP DRILL WITH ROTARY FILE, CUT TO LINE WITH ROTARY FILE, AND FINAL DRESS HOLE WITH HAND FILE AND EMERY CLOTH ENDS-WITH ASIDE TOOLS CONDITIONS-USE OF DRILL TO PILOT DRILL AND COUNTERBORE COMPUTED AT 30% OCCURRENCE</p> <p>19280 CASE 01 REMOVE EXTERNAL SURFACE DAMAGE, TO 4 INCHES DIAMETER</p> <p>31000 02 REMOVE EXTERNAL SURFACE DAMAGE, 4-7 INCHES DIAMETER</p> <p>42840 03 REMOVE EXTERNAL SURFACE DAMAGE, 7-10 INCHES DIAMETER</p> <p>55170 04 REMOVE EXTERNAL SURFACE DAMAGE, 10-13 INCHES DIAMETER</p> <p>67250 05 REMOVE EXTERNAL SURFACE DAMAGE, 13-16 INCHES DIAMETER</p>

# DEFENSE WORK MEASUREMENT STANDARD TIME DATA ELEMENTS

DATA SOURCE	CCUP- ATION	QUALITY	SOURCE CODE	OWMSTD ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION
NAA	807	TUA	AMRMXX	STLASXX	VARIABLE	ALUMINUM, SAW WITH JEWELER'S OR SKIN SAW, PER STRAIGHT LINEAR INCH STARTS=WITH GET SAW INCLUDES=ALL MOTIONS NECESSARY TO POSITION SAW TO CUTTING POINT AND CUT ONE STRAIGHT LINEAR INCH ENDS=WITH ASIDE SAW CONDITIONS=ADDITIONAL INCH* CASES INCLUDE CUTTING PROCESS TIME ONLY
					200	CASE 01 FIRST LINEAR INCH, MATERIAL .032-.045 INCH THICKNESS
					90	02 EACH ADDITIONAL LINEAR INCH, MATERIAL .032-.045 INCH THICKNESS
					230	03 FIRST LINEAR INCH, MATERIAL .046-.064 INCH THICKNESS
					120	04 EACH ADDITIONAL LINEAR INCH, MATERIAL .046-.064 INCH THICKNESS
					290	05 FIRST LINEAR INCH, MATERIAL .065-.100 INCH THICKNESS
					180	06 EACH ADDITIONAL LINEAR INCH, MATERIAL .065-.100 INCH THICKNESS
NAA	807	MRA	AMRDRXX	STLCAXX	VARIABLE	AREA(DAMAGED), CUT AWAY, ALUMINUM ALLOY TO .064 INCH THICKNESS, RECTANGULAR AREA STARTS=WITH VISUAL EXAMINATION OF DAMAGED AREA INCLUDES=ALL MOTIONS NECESSARY TO MEASURE AND MARK AREA TO BE CUT, CENTER PUNCH FOUR CORNERS FOR DRILLING, SET UP AIR POWERED DRILL, PILOT DRILL AND COUNTERBORE CORNERS, CUT AWAY DAMAGED AREA WITH SNIPS, AND FINAL DRESS WITH FILE AND EMERY CLOTH ENDS=WITH ASIDE TOOLS
					26580	CASE 01 REMOVE EXTERNAL SURFACE DAMAGE TO 16 INCHES PERIMETER
					42110	02 REMOVE EXTERNAL SURFACE DAMAGE 16-28 INCHES PERIMETER
					57650	03 REMOVE EXTERNAL SURFACE DAMAGE 28-40 INCHES PERIMETER
					73190	04 REMOVE EXTERNAL SURFACE DAMAGE 40-52 INCHES PERIMETER
					88730	05 REMOVE EXTERNAL SURFACE DAMAGE 52-64 INCHES PERIMETER
NAA	807	MAA	SMRDRXX	STLDRXX	VARIABLE	DENT, REMOVE FROM ALUMINUM TO .064 INCH THICKNESS, PER SQUARE INCH STARTS=WITH GET PART INCLUDES=ALL MOTIONS NECESSARY TO MOVE PART TO WORK AREA, GET WEIGHT AND PLACE ON PART, GET BACK-UP BAR, POSITION TO DENT, GET HAMMER, STRIKE FOUR BLOWS TO DENT AREA, MAKE VISUAL EXAMINATION AFTER EACH HAMMER BLOW, ASIDE HAMMER, FEEL PART WITH HAND TO CHECK SMOOTHNESS, ASIDE BACK-UP BAR, AND ASIDE WEIGHT ENDS=WITH ASIDE PART
					801	CASE 01 FIRST SQUARE INCH OF DENT
					530	02 FIRST SQUARE INCH OF ADDITIONAL DENT
					363	03 EACH ADDITIONAL SQUARE INCH OF SAME DENT
NF	809	MAF	1272/73	4JPTSXX	VARIABLE	TRAMMEL, SET TO SCALE STARTS=WITH HAND ON TRAMMEL INCLUDES=ALL MOTIONS NECESSARY TO MOVE TRAMMEL TO SCALE, POSITION FIRST POINT, LOOSEN LOCK SCREW, MOVE SECOND POINT ALONG TRAMMEL, POSITION POINT TO SCALE, VISUALLY CHECK, AND TIGHTEN LOCK SCREW ENDS=WITH MOVE TRAMMEL ASIDE
					209	CASE 01 SET 1-MAN TRAMMEL
					295	02 SET 2-MAN TRAMMEL (TIME VALUE FOR TWO OPERATORS)

# DEFENSE WORK MEASUREMENT STANDARD TIME DATA ELEMENTS

DATA SOURCE	OCCUP- ATION	QUALITY	SOURCE CODE	DWMSTDP ELEMENT	TMO VALUE	OPERATION/ELEMENT DESCRIPTION
NF	809	MAF	1078	MTLDU01	152	DIVIDERS, USE TO SCRIBE 90-DEGREE ARC STARTS-WITH DIVIDERS IN HAND INCLUDES-ALL MOTIONS NECESSARY TO MOVE POINT OF DIVIDERS TO CENTERPOINT, POSITION SCRIBING POINT, SCRIBE 90-DEGREE ARC, MOVE DIVIDERS AWAY, AND VISUALLY CHECK WORK ENDS-WITH DIVIDERS IN HAND CONDITION-APPLICABLE TO SCRIBING ARC TO 16-INCH RADIUS
NF	809	MAF	1112	MTLTU01	328	TRAMMEL, USE TO SCRIBE 90-DEGREE ARC, ONE OPERATOR, 36-INCH RADIUS STARTS-WITH SIDESTEP TO MOVE TRAMMEL TO WORK INCLUDES-ALL MOTIONS NECESSARY TO POSITION POINT TO PUNCH MARK, SIDESTEP TO SCRIBING END OF TRAMMEL, AND SCRIBE ARC ENDS-WITH SIDESTEP TO CENTER POINT
AE	81X	MAW	SWDEAH1	MACAA01	55	AMPERAGE, ADJUST ON AC OR DC WELDING MACHINE STARTS-WITH REACH TO CONTROL INCLUDES-ALL MOTIONS NECESSARY TO GRASP CONTROL, LOCATE SETTING, APPLY PRESSURE, MOVE TO SETTING, CHECK SETTING AND RELEASE CONTROL ENDS-WITH RELEASE CONTROL CONDITIONS-DIAL MOVED APPROXIMATELY 12 INCHES
NO	81X	MAO	LFA1W	MACCA01	56	CONTROLS (HEAT), ADJUST ON WELDING MACHINE STARTS-WITH REACH TO FIRST CONTROL INCLUDES-ALL MOTIONS NECESSARY TO TURN TWO CONTROL HANDLES TO NEW SETTINGS ENDS-WITH RELEASE SECOND CONTROL HANDLE CONDITIONS-CONTROL HANDLES TURNED APPROXIMATELY 45 DEGREES
NF	81X	MAF	2138	MACK001	93	KNOB, OPEN ON ACETYLENE TORCH TIP STARTS-WITH REACH TO TIP HANDLE INCLUDES-ALL MOTIONS NECESSARY TO OBTAIN TORCH TIP FROM HANGER, GET KNOB, LOOSEN, AND TURN KNOB TO OPEN VALVE ENDS-WITH RELEASE OF KNOB
AE	81X	MAW	SWDEAG1	MACMT01	74	MACHINE (WELDING), TURN ON OR OFF STARTS-WITH BEND TO SWITCH OR BUTTON INCLUDES-ALL MOTIONS NECESSARY TO BEND TO SWITCH OR BUTTON, ACTUATE SWITCH OR BUTTON, AND ARISE ENDS-WITH ARISE FROM BEND
AE	81X	MAW	SWDEAS1	MACVT01	69	VALVE (ACETYLENE AND OXYGEN), TURN OFF STARTS-WITH REACH TO ACETYLENE VALVE INCLUDES-ALL MOTIONS NECESSARY TO CLOSE ACETYLENE VALVE, REACH TO AND CLOSE OXYGEN VALVE ENDS-WITH RELEASE OF VALVE
NF	81X	MAF	1256	MCLSCXX	VARIABLE	SLAG, CHIP WITH CHIPPING HAMMER, CHISEL, AND BRUSH STARTS-WITH SIMO REACH TO HAMMER AND CHISEL INCLUDES-ALL MOTIONS NECESSARY CHIP SLAG WITH HAMMER AND CHISEL, ASIDE HAMMER AND CHISEL, GET WIRE BRUSH, AND BRUSH OFF SLAG ENDS-WITH ASIDE BRUSH CONDITIONS-GENERALLY APPLICABLE TO REMOVAL OF SLAG AFTER BURNING OR CUTTING OPERATION CASE 01 FIRST LINEAR FOOT 02 EACH ADDITIONAL LINEAR FOOT (WITHOUT GET AND ASIDE TOOLS)

717  
588

# DEFENSE WORK MEASUREMENT STANDARD TIME DATA ELEMENTS

DATA SOURCE	OCCUP- ATION	QUALITY	SOURCE CODE	DWMSTDP ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION
NF	81X	MAF	1251	MCLSKXX VARIABLE	416 301	SCALE, KNOCK FROM WELD WITH HAMMER AND BRUSH STARTS-WITH GET HAMMER INCLUDES-ALL MOTIONS NECESSARY TO TAP WELD WITH HAMMER ONCE PER INCH TO LOOSEN SCALE, ASIDE HAMMER, GET BRUSH, AND BRUSH SCALE AWAY ENDS-WITH ASIDE BRUSH CASE 01 FIRST LINEAR FOOT OF WELD 02 EACH ADDITIONAL LINEAR FOOT OF WELD
NO	81X	MAO	LHW1W/Y	MCLSRXX VARIABLE	136 52	SLAG, REMOVE WITH CHIPPING HAMMER STARTS-WITH GET TOOL INCLUDES-ALL MOTIONS NECESSARY TO POSITION TOOL, STRIKE AND CHIP SLAG, CHECK SURFACE AND MOVE TOOL ASIDE ENDS-WITH RELEASE OF TOOL CONDITIONS-GENERALLY APPLICABLE TO REMOVING SLAG AFTER BURNING OR GOUGING OPERATION CASE 01 FIRST OR SINGLE INCH OF SLAG CHIPPED 02 EACH ADDITIONAL INCH OF SLAG CHIPPED
NO	81X	MAO	LHW1N2	MCLSS01	30	SPATTER, SCRAPE PER INCH OF WELD STARTS-WITH SCRAPER POSITIONED FOR USE INCLUDES-ALL MOTIONS NECESSARY TO SCRAPE SPATTER FROM ONE INCH OF WELD ENDS-WITH ONE INCH OF WELD CLEANED
NAA	81X	MAA	OTLWSXX	MCLJCXX VARIABLE	143 80	TIP, CLEAN WITH SANDPAPER, WELDING GUN STARTS-WITH GET SANDPAPER, TIP IN HAND INCLUDES-ALL MOTIONS NECESSARY TO USE SANDPAPER TO CLEAN WELDING GUN TIP ENDS-WITH ASIDE SANDPAPER CASE 01 ROLLER TIP GUN 02 POINTER TIP GUN
NF	81X	MAF	1270	MCLTC03	224	TIP, CLEAN WITH EMERY CLOTH WRAPPED AROUND FILE, SPOT WELDER STARTS-WITH TOOL IN HAND INCLUDES-ALL MOTIONS NECESSARY TO USE EMERY TO CLEAN TWO ELECTRODE TIPS ENDS-WITH FILE AND EMERY IN HAND
FFD	81X	TBA	KWLPTS8	MCLTD01	728	TIP (ELECTRODE WELDER), DRESS STARTS-WITH REACH TO GET DRESSING BOARD INCLUDES-ALL THE MOTIONS NECESSARY TO GET DRESSING BOARD, DRESS TIP TO A SMOOTH FINISH AND ASIDE BOARD ENDS-WITH ASIDE DRESSING BOARD
NO	81X	MAC	LFAIR1	MGMPC01	143	PART, CHECK FOR WARPAGE WITH 12-INCH SCALE STARTS-WITH REACH TO SCALE INCLUDES-ALL MOTIONS NECESSARY TO GET SCALE, BEND, POSITION SCALE TO PART, VISUALLY CHECK PART FOR WARPAGE, ARISE AND ASIDE SCALE ENDS-WITH RELEASE OF SCALE
FFD	81X	MAA	KWLSUAD	4JPCC01	546	CABLE (ELECTRODE HOLDER), CONNECT/DISCONNECT TO/FROM ARC WELDER STARTS-WITH REACH TO GET HOLDER CABLE INCLUDES-ALL THE MOTIONS NECESSARY TO GET HOLDER, STOOP TO WELDER, INSERT CABLE INTO WELDER, ARISE, STOOP, GRASP AND REMOVE CABLE, ARISE ENDS-WITH HOLDER IN HAND CONDITIONS-INCLUDES TIME FOR BOTH CONNECT AND DISCONNECT

DEFENSE WORK MEASUREMENT STANDARD TIME DATA ELEMENTS

DATA SOURCE	OCCUP- ATION	QUALITY	SOURCE CODE	OWMSTDP ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION
AF	81X	MAA	636	MJPEC01	350	ELECTRODE(TUNGSTEN),CHANGE IN TORCH STARTS-WITH TORCH AND ELECTRODE IN HAND INCLUDES-ALL THE MOTIONS NECESSARY TO LOOSEN ELECTRODE SECURING NUT,SCREW OFF NUT,PALM NUT, REMOVE ELECTRODE,ASIDE TO WORKBENCH(NUT AND ELECTRODE),PICK UP NEW ELECTRODE ON WORKBENCH, INSERT ELECTRODE,GET SECURING NUT FROM BENCH AND INSTALL ON TORCH TIP ENDS-WITH RELEASE OF NUT
AF	81X	MAW	SWDEAR1	MJPFA01	94	FLAME,ADJUST ON HAND TORCH STARTS-WITH REACH TO KNOB ON OXYGEN VALVE INCLUDES-ALL MOTIONS NECESSARY TO TURN OXYGEN VALVE,TURN ACETYLENE VALVE KNOB,FOCUS EYES,ADJUST OXYGEN VALVE AND CHECK FLAME ENDS-WITH RELEASE VALVE
NO	81X	MAQ	LHW12	MJPGP01	110	GOGGLES(BURNING),PUT ON AND REMOVE STARTS-WITH REACH TO GOGGLES ON TOP OF HEAD INCLUDES-ALL MOTIONS NECESSARY TO MOVE AND ADJUST GOGGLES OVER EYES;REACH TO GOGGLES AND MOVE THEM TO TOP OF HEAD ENDS-WITH RELEASE GOGGLES CONDITIONS-WELDING TORCH HELD IN ONE HAND WHILE PUTTING ON AND TAKING OFF GOGGLES
FFD	81X	MAA	KWLSUTA	MJPHA01	954	HOSES(OXYGEN AND ACETYLENE),ATTACH AND REMOVE TO/FROM TORCH STARTS-WITH REACH TO TOOL INCLUDES-ALL THE MOTIONS NECESSARY TO GET TOOL,GET HOSES,PLACE TO TORCH,TIGHTEN NUT TO HOLD HOSE ON TORCH WITH WRENCH,LOOSEN NUT, REMOVE HOSES AND ASIDE TORCH ENDS-WITH ASIDE TOOL
NF	81X	MAF	4012/13	MJPJP01	435	JACKET(WELDERS),PUT ON AND TAKE OFF STARTS-WITH JACKET IN HAND INCLUDES-ALL MOTIONS NECESSARY TO PUT JACKET ON,ZIP UP,UNZIP,AND REMOVE JACKET ENDS-WITH JACKET IN HAND
FFD	81X	MAA	KWLSUXX	MJPRCXX	VARIABLE	ROD(WELDING),CHANGE IN ELECTRODE HOLDER STARTS-WITH REACH TO ELECTRODE HOLDER AND LEAD INCLUDES-ALL THE MOTIONS NECESSARY TO GET ROD HOLDER,GET ROD,INSTALL ROD IN HOLDER(HELD WITH CLAMP),ASIDE HCLDER AFTER USE ENDS-WITH ASIDE HOLDER 161 CASE 01 CHANGE FIRST ROD 85 02 CHANGE EACH ADDITIONAL ROD(DOES NOT INCLUDE GET AND ASIDE HOLDER)
AF	81X	MAA	640	MJPRR01	83	REGULATOR,READJUST,TWO TANKS STARTS-WITH REACH TO REGULATOR INCLUDES-ALL THE MOTIONS NECESSARY TO GRASP REGULATOR HANDLE AND TURN,ADJUST,REACH TO SECCND REGULATOR HANDLE,TURN HANDLE TO ADJUST, RELEASE HANDLE ENDS-WITH RELEASE HANDLE CONDITIONS-APPLICABLE TO ADJUSTING PRESSURE REGULATORS ON TWO OXY-ACETYLENE WELDING TANKS
FFF	81X	MAA	MJPCE04	MJPSP01	173	SHIELD(WELDING),PUT ON AND REMOVE STARTS-WITH REACH TO PROTECTIVE SHIELD INCLUDES-ALL MOTIONS NECESSARY TO GET WELDERS PROTECTIVE SHIELD,PUT SHIELD ON AND LOWER COVER OVER FACE;AND REMOVE AND ASIDE SHIELD ENDS-WITH ASIDE SHIELD CONDITIONS-DOES NOT INCLUDE TIME FOR ADJUSTING HEADBAND

DEFENSE WORK MEASUREMENT STANDARD TIME DATA ELEMENTS

DATA SOURCE	OCCUP- ATION	QUALITY	SOURCE CODE	DWMSTOP ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION
AF	81X	MAA	261	MJPSR01	76	SHIELD(WELDING),RAISE AND LOWER STARTS-WITH REACH TO HOOD(ION HEAD) INCLUDES ALL THE MOTIONS NECESSARY TO GRASP AND LOWER HOOD(SHIELD)INTO POSITION TO WELD, RELEASE HOOD,REACH,GRASP,RAISE AND RELEASE HOOD ENDS-WITH RELEASE HOOD(SHIELD)
NF	81X	MAF	2685	MJPTD01	251	TIP(TORCH),DETACH BY HAND STARTS-WITH REACH TO TORCH INCLUDES-ALL MOTIONS NECESSARY TO GET TORCH, SCREW TIP OFF BY HAND,AND PLACE TIP ASIDE ENDS-WITH RELEASE OF TIP
NF	81X	MAF	3043	MJPTD02	104	TIP(ELECTRODE),DETACH FROM SPOTWELDER STARTS-WITH REACH TO TIP,HAMMER IN OTHER HAND INCLUDES-ALL MOTIONS NECESSARY TO TAP ELECTRODE TIP WITH HAMMER TO LOOSEN,AND REMOVE TIP ENDS-WITH TIP AND HAMMER IN HAND
NF	81X	MAF	3345	MJPTI01	121	TIP(ELECTRODE),INSTALL ON SPOTWELDER STARTS-WITH TIP AND HAMMER IN HAND INCLUDES-ALL MOTIONS NECESSARY TO MOVE TIP TO ELECTRODE,POSITION,AND TAP WITH HAMMER ENDS-WITH HAMMER IN HAND
FFE	81X	MAA	GTLTAA1	MJPTL01	67	TORCH(ACETYLENE),LIGHT WITH FRICTION TYPE IGNITER STARTS-WITH TORCH IN HAND-GAS VALVE OPEN INCLUDES-ALL MOTIONS NECESSARY TO GET IGNITER, PLACE IGNITER TO TORCH,STRIKE IGNITER ONE TIME,AND ASIDE IGNITER ENDS-WITH RELEASE OF IGNITER
NF	81X	MAF	2358	MJPTR01	119	TENSION,RELEASE ON OXY-ACETYLENE WELDING REGULATOR STARTS-WITH REACH TO HANDLE INCLUDES-ALL THE MOTIONS NECESSARY TO TURN REGULATOR HANDLE TO RELEASE TENSION,RELEASE HANDLE ENDS-WITH RELEASE HANDLE
NF	81X	MAF	2357	MJPVT01	321	VALVE(OXY-ACETYLENE CYLINDER),TURN OFF STARTS-WITH WRENCH IN HAND,STANDING AT CYLINDER INCLUDES-ALL THE MOTIONS NECESSARY TO POSITION WRENCH ON CYLINDER VALVE,TURN WRENCH FOUR TIMES(EIGHT INCH MOVE)TO TURN VALVE OFF ENDS-WITH VALVE TURNED OFF,WRENCH IN HAND ON VALVE
FFD	81X	TAA	KWLPTSA	MJPWP01	5206	WELDER(SPOT),PREPARE(ADJUST HEAT) STARTS-WITH HAND ON CONTROL DIALS INCLUDES-ALL THE MOTIONS NECESSARY TO ADJUST TEMPERATURE AND PRESSURE CONTROLS TO DESIRED OPERATING RANGE ENDS-WITH WELDER READY TO OPERATE-HANDS IN CONTROL CONDITIONS-INCLUDES ALL NECESSARY ADJUSTMENTS AND PREHEAT TIME
FFD	81X	MAA	KWLSUTB	SJPTC01	669	TIP(OXY-ACETYLENE TORCH),CHANGE WITH WRENCH STARTS-WITH REACH TO OPEN TOOL BOX INCLUDES-ALL MOTIONS NECESSARY TO GET WRENCH AND TIP FROM OPEN TOOLBOX,PLACE TIP IN WORK AREA,GET TORCH,REMOVE TIP NUT,ASIDE TIP,GET NEW TIP,PLACE ON TORCH,TIGHTEN TIP NUT,ASIDE TORCH,AND ASIDE WRENCH ENDS-WITH RELEASE OF WRENCH

DEFENSE WORK MEASUREMENT STANDARD TIME DATA ELEMENTS

DATA SOURCE	OCCUP- ATION	QUALITY	SOURCE CODE	DWMSTD ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION
NAA	81X	MRA	SWLEVW1	SJPTGXX	VARIABLE	TIP(ELECTRODE), GRIND STARTS-WITH REACH TO BENCH DRAWER INCLUDES-ALL THE MOTIONS NECESSARY TO OPEN DRAWER, GET BOX OF ELECTRODE TIPS OUT OF DRAWER AND CLOSE DRAWER, TURN ON GRINDER, GET TIP FROM BOX, POSITION TO GRINDING WHEEL, MOVE TIP TO GRIND, DIP TIP IN WATER AFTER GRINDING, EXAMINE TIP, REGRIND TIP WHEN REQUIRED, PLACE TIP IN BOX AND TURN OFF GRINDER, PLACE BOX OF TIPS ON BENCH ENDS-WITH PLACE BOX OF TIPS ON BENCH 462 CASE 01 GRIND FIRST OR SINGLE TIP 205 02 GRIND EACH ADDITIONAL TIP 165 03 REGRIND WHEN REQUIRED
OL	81X	MAF	SJPTL01	SJPTL01	349	TORCH(OXY-ACETYLENE), LIGHT AND TURN OFF STARTS-WITH REACH TO TORCH INCLUDES-ALL MOTIONS NECESSARY TO OBTAIN TORCH FROM HANGER, OPEN ACETYLENE VALVE, GET IGNITER, LIGHT TORCH, ASIDE IGNITER, OPEN OXYGEN VALVE, ADJUST FLAME; AND TURN VALVES OFF ENDS-WITH ASIDE TORCH TO HANGER
NAA	81X	MUA	OTLWSXX	SNFSWXX	VARIABLE	SPOT(OR SEAM), WELD STARTS-WITH GET GROUND CABLE INCLUDES-ALL MOTIONS NECESSARY TO ATTACH GROUND CABLE, PUT ON GLOVES, GET METAL AND POSITION FOR WELDING, GET WELDING GUN, WELD, ASIDE GUN, AND REMOVE GLOVES ENDS-WITH REMOVE AND ASIDE GROUND CABLE 769 CASE 01 WELD FIRST TWO INCH SEAM IN STAINLESS STEEL FOIL TO .004 INCH WITH ROLLER TIP GUN 174 02 EACH ADDITIONAL TWO INCH SEAM IN STAINLESS STEEL FOIL TO .004 INCH WITH ROLLER TIP GUN 741 03 WELD FIRST TWO SPOTS IN STAINLESS STEEL TO .010 INCH WITH POINTER TIP GUN 50 04 EACH ADDITIONAL SPOT IN STAINLESS STEEL TO .010 INCH WITH POINTER TIP GUN
FFD	81X	NAA	KWLSPPX	SNFWAXX	VARIABLE	WELD(SPOT), ACCOMPLISH STARTS-WITH REACH TO MAIN SWITCH INCLUDES-ALL THE MOTIONS AND TIME NECESSARY TO TURN ON MAIN SWITCH, PUT ON AND REMOVE APRON, GLOVES(LOOSE FIT), FACE SHIELD, REMOVE BOTH ELECTRODES, INSTALL ELECTRODES, DRESS TIP, TURN MACHINE ON, PREPARE SPOT WELDER(ADJUST HEAT), GET PART, WELD SPOT, ASIDE PART, TURN OFF MACHINE ENDS-WITH REMOVE PROTECTIVE CLOTHING 8306 CASE 01 SPOT WELD FIRST OR SINGLE SPOT 89 02 SPOT WELD EACH ADDITIONAL SPOT WITH ONE TO THREE INCH SPACING
NAA	81X	MUA	OTLWSXX	SNFWSXX	VARIABLE	SPOT(OR SEAM), WELD ON SCIAKY STATIONARY WELDING MACHINE STARTS-WITH GET PART INCLUDES-ALL MOTIONS NECESSARY TO MOVE PART IN POSITION FOR WELDING, WELD SPOT OR SEAM, AND REMOVE PART ENDS-WITH ASIDE PART 212 CASE 01 WELD ONE SPOT ON MID-RANGE REPEAT CYCLE, ALUMINUM OR STEEL TO .090 INCH THICKNESS 811 02 WELD FIRST TWO INCH SEAM, ALUMINUM OR STEEL TO .050 INCH THICKNESS, MACHINE SPEED 20 INCHES PER MINUTE 167 03 EACH ADDITIONAL TWO INCHES OF SEAM, ALUMINUM OR STEEL TO .050 INCH, MACHINE SPEED 20 INCHES PER MINUTE



DEFENSE WORK MEASUREMENT STANDARD TIME DATA ELEMENTS

DATA SOURCE	OCCUPATION	QUALITY	SOURCE CODE	OWMSTOP ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION
AE	81X	MAW	SWDEANL	MOHTP01	355	TANK, PUT ON HAND TRUCK STARTS-WITH REACH TO HAND TRUCK HANDLES INCLUDES-ALL MOTIONS NECESSARY TO GET HAND TRUCK, TILT TRUCK AND WALK THREE PACES TO MOVE TRUCK TO DESIRED POSITION, RELEASE TRUCK, REACH TO TANK, TIP TANK TO SIDE, MOVE HAND TRUCK UNDER TANK, GET TRUCK HANDLES AND TILT TRUCK WITH LOAD TAKING TWO STEPS TO BALANCE HAND TRUCK ENDS-WITH TANK BALANCED ON HAND TRUCK
AE	81X	MAW	SWDEANL	MOHTR01	126	TANK, REMOVE FROM HAND TRUCK STARTS-WITH RELEASE HANDLES OF HAND TRUCK INCLUDES-ALL MOTIONS NECESSARY TO TILT TANK, PULL HAND TRUCK FROM UNDER TANK AND SET TANK DOWN ENDS-WITH RELEASE TANK
FFD	81X	TAA	KWLPTSC	BPTSW01	68	SPOT, WELD STARTS-WITH MATERIAL IN POSITION TO WELD INCLUDES-ALL THE TIME NECESSARY TO WELD ONE SPOT WITH SPOT WELDER ENDS-WITH SPOT WELDED AND READY TO MOVE MATERIAL TO NEXT SPOT CONDITIONS-TIME IS NOT INCLUDED TO MOVE MATERIAL ON OR OFF SPOT
AF	81X	MAA	604	MSUCA01	187	CYCLE DIALS (SPOT WELDING MACHINE), ADJUST STARTS-WITH REACH TO DIAL INCLUDES-ALL THE MOTIONS NECESSARY TO GRASP AND TURN FIRST DIAL, CHECK FOR PROPER SETTING, TURN "HOLD" DIAL AND CHECK FOR PROPER SETTING, TURN "OFF" DIAL AND CHECK FOR PROPER SETTING, TURN IGNITION SWITCH ON, RELEASE SWITCH ENDS-WITH RELEASE IGNITION SWITCH
NAA	81X	MUA	OTLWSXX	SSUMS01	3995	MACHINE (WELDING), SET UP, SCIACKY OR SIMILAR AND TEST WELD THREE SPOTS STARTS-WITH TURN AND WALK TO LEFT HAND PANEL INCLUDES-ALL MOTIONS NECESSARY TO ADJUST THREE DIALS, RETURN THREE PACES TO WELD POSITION, TURN AND WALK THREE PACES TO RIGHT HAND PANEL, ADJUST AIR PRESSURE, ADJUST ELECTRICAL CONTACT PRESSURE, RETURN TO WELD POSITION, ACTUATE "RAISE" SWITCH, CLEAN ELECTRODES, ACTUATE "LOWER" SWITCH, GET AIR HOSE AND BLOW OFF ELECTRODES, ASIDE AIR HOSE, GET TEST STRIPS, WELD THREE SPOTS, VISUALLY CHECK SPOTS, ASIDE STRIPS, GET TEST STRIPS AND WELD-TH BANK, ASIDE STRIP, GET TEST STRIPS AND WELD-THA BANK, GET "TH STRIP", CARRY THREE PACES TO TENSION TESTER, PERFORM TENSION TEST ON EACH OF TWO WELDS, AND RETURN TO WELD POSITION ENDS-WITH SETUP AND TESTS COMPLETE CONDITIONS-ALUMINUM OR STEEL TO .090 INCH THICKNESS

DEFENSE WORK MEASUREMENT STANDARD TIME DATA ELEMENTS

DATA SOURCE	OCCUP- ATION	QUALITY	SOURCE CODE	DWMSTOP ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION
NAA	81X	MAA	OTLWSXX	SSUMS02	3461	MACHINE(WELDING),SET UP,SCIACKY OR SIMILAR AND TEST WELD ONE TWO INCH SEAM STARTS-WITH TURN AND WALK TO LEFT HAND PANEL INCLUDES-ALL MOTIONS NECESSARY TO ADJUST THREE DIALS,RETURN THREE PAGES TO WELD POSITION;TURN TO RIGHT SIDE PANEL,ADJUST AIR PRESSURE AND ELECTRICAL CONTACT PRESSURE,TURN AND WALK ONE PAGE TO RIGHT HAND PANEL,ADJUST MOTOR SPEED RHEOSTAT,RETURN TO WELD POSITION,CLEAN TOP AND BOTTOM WHEELS WITH SANDPAPER,WIPE WHEELS WITH CLOTH TO REMOVE DUST,TURN,GET TEST STRIPS, TURN,PLACE STRIPS TO WHEELS,WELD TWO INCH SEAM,VISUALLY CHECK SEAM,GET PLIERS,BEND EACH STRIP 90 DEGREES,ASIDE PLIERS,ATTACH CLAMPS, PERFORM SHEAR TEST,AND REMOVE CLAMPS ENDS-WITH ASIDE STRIP CONDITIONS-ALUMINUM OR STEEL TO .050 INCH THICKNESS
NO	81X	MAO	LHWIF1	MTPTIO1	119	TOOL,INSERT AND REMOVE,AIR HAMMER STARTS-WITH REACH TO TOOL INCLUDES-ALL MOTIONS NECESSARY TO GET TOOL,POSITION AND INSERT IN AIR HAMMER;REACH TO TOOL,DISENGAGE AND ASIDE TOOL ENDS-WITH RELEASE OF TOOL
FFD	810	MAA	KWLSUTE	MJPEGQ1	221	ELECTRODE(HELI-ARC WELDING),GRIND STARTS-WITH REACH TO SWITCH INCLUDES-ALL THE MOTIONS NECESSARY TO TURN ON PEDESTAL GRINDER,GRIND ELECTRODE,INSPECT TIP,TURN OFF GRINDER ENDS-WITH TURN OFF GRINDER
FFD	810	MAA	KWLSUAA	MJPM501	303	MACHINE(ARC WELDING),SET UP STARTS-WITH STOOP TO WELDING MACHINE INCLUDES-ALL THE MOTIONS NECESSARY TO STOOP, TURN MACHINE ON,SET RANGE CONTROL DIAL FOR CORRECT HEAT RANGE,GET AND ATTACH GROUND CLAMP TO WORK AND GROUND,REMOVE AND ASIDE CLAMP, ARISE FROM STOOP ENDS-WITH ARISE FROM STOOP
FFD	810	MAA	KWLSUAE	MJPPC01	293	POLARITY(ARC WELDING MACHINE),CHANGE STARTS-WITH BEND TO MACHINE INCLUDES-ALL THE MOTIONS NECESSARY TO REMOVE AND EXCHANGE NEGATIVE AND POSITIVE LEADS ENDS-WITH ARISE FROM BEND
FFD	810	MAA	KWLSUXX	SJPECXX	VARIABLE	ELECTRODE(HELI-ARC WELDING),CHANGE STARTS-WITH HOLDER IN HAND INCLUDES-ALL THE MOTIONS NECESSARY TO GRASP AND REMOVE CAP,ASIDE CAP,GET AND ASIDE COLLET AND ELECTRODE,REMOVE AND ASIDE CUP,LOUSEN COLLET HOLDER,PLACE COLLET IN TORCH,PLACE ELECTRODE IN TORCH,SCREW IN CUP AND TIGHTEN, SCREW CAP ON AND PLACE ELECTRODE TO WORK PIECE ENDS-WITH ELECTRODE IN POSITION TO WELD CASE 01 REMOVE ELECTRODE OF ONE SIZE,REPLACE WITH ELECTRODE OF ANOTHER SIZE 02 REMOVE ELECTRODE AND REPLACE WITH ELECTRODE OF SAME SIZE
DL	810	MAF	SJPRC01	SJPRC01	354	ROD(WELDING),CHANGE IN ELECTRODE HOLDER STARTS-WITH BREAK ARC AND MOVE ROD FROM WORK INCLUDES-ALL MOTIONS NECESSARY TO RAISE HOOD, OPEN CLAMP,REMOVE ROD FROM HOLDER,GET ROD, PLACE IN HOLDER,CLOSE CLAMP,MOVE ROD OVER WORK,LOWER HOOD,MOVE ROD TO WORK,AND STRIKE ARC ENDS-WITH ROD IN POSITION FOR WELDING

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DATA SOURCE	OCCUP- ATTION	QUALITY	SOURCE CODE	DWMSTOP ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION
AE	810	MAW	SWOEAC1	MNFEP01	53	ELECTRODE, POSITION AND STRIKE ARC STARTS-WITH ELECTRODE IN HAND INCLUDES-ALL MOTIONS NECESSARY TO MOVE AND POSITION ELECTRODE, FOCUS EYES AFTER LOWERING HOOD, STRIKE ARC, MOVE AND POSITION ELECTRODE FOR ARC WELD ENDS-WITH ELECTRODE POSITIONED FOR WELD CONDITION-TIME TO LOWER HOOD NOT INCLUDED
FFD	810	EUA	RWHAL01	MNFWAXX	VARIABLE	WELD, ACCOMPLISH, ARC WELD, PER INCH STARTS-WITH ROD IN WELDING POSITION, ARC STARTED INCLUDES-ALL MOTIONS NECESSARY TO FUSE-WELD ONE LINEAR INCH ENDS-WITH WELD COMPLETED, ROD POSITIONED TO MATERIAL 467 CASE 01 WELD ONE LINEAR INCH, ALUMINUM OR MAGNESIUM 2080 02 WELD ONE LINEAR INCH, STAINLESS STEEL, USE .0625 INCH ROD
NAA	810	MAA	SWLIWXX	SNFWMXX	VARIABLE	WELD (INERT GAS-ARC), MAKE STARTS-WITH REACH TO WELD TORCH INCLUDES-ALL THE MOTIONS NECESSARY TO GET AND POSITION WELD TORCH TO PART, OBTAIN WELD ROD AND POSITION TO PART, FLIP HOOD DOWN WITH NOO OF HEAD, PLACE FOOT ON PEDAL AND DEPRESS, PLACE WELD ROD TO WELD POINT, PLACE TORCH TO WELD ROD AND WELD POINT, RELEASE FOOT PEDAL, ASIDE FOOT, ASIDE ROD TO BENCH, MOVE TORCH FROM PART, RAISE HOOD, ASIDE TORCH TO HOLDER ON BENCH ENDS-WITH ASIDE TORCH CONDITIONS-APPLIES TO LINDE HW-18 OR HW-20 WELDERS OR SIMILAR-.125 INCH THICK STEEL OR ALUMINUM-INERT GAS, METAL ARC 1259 CASE 01 FIRST OR SINGLE INCH-MOVE TORCH AND ROD 16 TIMES TO MAKE WELD 784 02 EACH ADDITIONAL INCH-MOVE TORCH AND ROD 16 TIMES TO MAKE WELD 578 03 TACK WELD-FIRST OR SINGLE SPOT-MOVE TORCH AND ROD TWO TIMES TO MAKE WELD 408 04 TACK WELD-EACH ADDITIONAL SPOT-MOVE TORCH AND ROD TWO TIMES TO MAKE WELD
AF	810	OBW	151831	MOHAB01	193	ARC, BREAK AND MOVE TO NEXT WELD STARTS-WITH BREAK ARC AND MOVE ROD FROM WORK INCLUDES-ALL MOTIONS NECESSARY TO RAISE HOOD, SIDESTEP TO NEXT WELD, MOVE ROD OVER WORK, LOWER HOOD, MOVE ROD TO WORK, AND SCRATCH SURFACE TO STRIKE ARC ENDS-WITH ROD IN POSITION TO MAKE WELD
NO	811	MAO	LHWIR1	MACVOXX	VARIABLE	VALVES (BLOWPIPE OXYGEN AND ACETYLENE), OPEN AND CLOSE STARTS-WITH REACH TO OXYGEN VALVES INCLUDES-ALL MOTIONS NECESSARY TO SLIGHTLY OPEN OXYGEN VALVE, THEN REACH TO AND FULLY OPEN ACETYLENE VALVE; REACH TO OXYGEN VALVE, CLOSE, REACH TO ACETYLENE VALVE, AND CLOSE ENDS-WITH RELEASE VALVE 74 CASE 01 OPEN TWO VALVES 76 02 CLOSE TWO VALVES
NO	811	MAO	LHW102	MCLHC01	751	HOLES (TORCH TIP), CLEAN STARTS-WITH MOVE CLEANER TO TIP INCLUDES-ALL MOTIONS NECESSARY TO POSITION CLEANER IN HOLE, MOVE BACK AND FORTH TO CLEAN HOLE AND REMOVE CLEANER FROM HOLE, SIX TIMES ENDS-WITH DISENGAGE CLEANER FROM SIXTH HOLE

# DEFENSE WORK MEASUREMENT STANDARD TIME DATA ELEMENTS

DATA SOURCE	OCCUP- ATION	QUALITY	SOURCE CODE	DWMSTOP ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION
NO	811	MAO	LHWIE2	MCLHC02	62	HOLE(HIGH PRESSURE TIP),CLEAN STARTS-WITH MOVE TAPERED CLEANER TO HOLE INCLUDES-ALL MOTIONS REQUIRED TO POSITION CLEANER IN HOLE AND ROTATE CLEANER IN HOLE ENDS-WITH CLEANER MOVED FROM HOLE
NO	811	MAO	LHWIS1	MJPBLO1	120	BLOWPIPE,LIGHT STARTS-WITH REACH TO LIGHTER IN HIP POCKET INCLUDES-ALL MOTIONS NECESSARY TO GET LIGHTER, POSITION IT TO BLOWPIPE TIP,STRIKE LIGHTER, MOVE LIGHTER FROM FLAME,AND RETURN LIGHTER TO POCKET ENDS-WITH RELEASE LIGHTER
NAA	811	MAA	SWLTJ01	MJPTRO1	635	TIP(ELECTRODE-GAS),REPLACE STARTS-WITH REACH TO GAS CAP ON TORCH INCLUDES-ALL THE MOTIONS NECESSARY TO GRASP AND LOOSEN GAS CAP(THREE TURNS),REPLACE CAP AND GRASP ELECTRODE TIP,DISENGAGE TIP FROM GAS LENS COLLET BODY AND ASIDE TIP,PICK UP PROPER TIP AND INSTALL IN COLLET,GRASP GAS CAP AND TURN DOWN THREE TURNS,TIGHTEN CAP,RELEASE CAP ENDS-WITH RELEASE CAP CONDITIONS-FOR LINDE HW-18 AND HW-2J WELDING TIPS
NO	811	MAO	LHWIU1	MOHBP01	45	BLOWPIPE,POSITION TO METAL STARTS-WITH BLOWPIPE IN RIGHT HAND INCLUDES-ALL MOTIONS NECESSARY TO MOVE BLOW- PIPE TO LEFT HAND AND USE TWO HANDS TO POSITION TIP OF BLOWPIPE TO POINT OF CUT ENDS-WITH BLOWPIPE IN POSITION TO CUT
AF	813	MAA	608	MSLTS01	129	THYRATON CONTROLS(SPOT WELDING MACHINE),SET STARTS-WITH REACH TO FIRST CONTROL INCLUDES-ALL THE MOTIONS NECESSARY TO POSITION POINT AND CHECK READING FOR FIRST CONTROL, SET RANGE SWITCH AND CHECK RANGE,ADJUST PER- CENT CONTROL POINTER,RELEASE CONTROL ENDS-WITH RELEASE PERCENT CONTROL
AF	814	MAA	8	SJPPP01	280	PRESSURE,PUMP IN BLOW TORCH TANK STARTS-WITH SIMO REACH TO TANK AND PUMP HANDLE INCLUDES-ALL MOTIONS NECESSARY TO LOOSEN VALVE SEAT BY TURNING PUMP HANDLE,MOVE HANDLE UP AND DOWN EIGHT STROKES TO BUILD PRESSURE,AND TIGHTEN VALVE SEAT ENDS-WITH RELEASE OF TORCH AND HANDLE
NF	814	MAF	1257	MNFSAXX VARIABLE	46 12	SOLDER,APPLY TO SEAM OR JOINT,SHEET METAL STARTS-WITH SOLDER AND IRON IN HAND INCLUDES-ALL MOTIONS NECESSARY TO MOVE SOLDER AND IRON TO JOINT,MOVE SOLDER AND IRON OVER JOINT TO SPREAD SOLDER,MOVE SOLDER AWAY,AND MOVE IRON AWAY ENDS-WITH SOLDER AND IRON IN HAND CONDITIONS-TIME FOR HEATING IRON AND SOLDER NOT INCLUDED CASE 01 FIRST LINEAR INCH 02 EACH ADDITIONAL LINEAR INCH WITHOUT LIFTING IRON AND SOLDER FROM WORK
AF	816	MAA	146	MACFE01	78	FEED(FLAME CUTTING MACHINE),ENGAGE TO START AND TURN OFF STARTS-WITH REACH TO SWITCH BUTTON INCLUDES-ALL THE MOTIONS NECESSARY TO TURN SWITCH BUTTON ON AND OFF,MOVE CLUTCH LEVER TO ENGAGE ENDS-WITH TURN OFF SWITCH CONDITIONS-RADIOGRAPH TYPE MACHINE

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DATA SOURCE	OCCUP- ATION	QUALITY	SOURCE CODE	DWMSTOP ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION
NF	816	MAA	3418	NJPTA01	152	TORCH(OXY-ACETYLENE-CUTTING),ADJUST FOR CUTTING BEVEL STARTS-WITH SIMO REACH TO TIP OF TORCH AND WING NUT INCLUDES-ALL THE MOTIONS NECESSARY TO GRASP AND HOLD TORCH WITH RIGHT HAND,LOOSEN WING NUT WITH LEFT HAND,PUSH TORCH TIP TO DESIRED DEGREE,TIGHTEN WING NUT,RELEASE TORCH ENDS-WITH WING NUT TIGHTENED,TORCH RELEASED
NF	816	MAA	2577	MSUBP01	145	BAR(RADIUS),PLACE IN AND REMOVE FROM FLAME CUTTING MACHINE STARTS-WITH REACH TO RADIUS BAR INCLUDES-ALL MOTIONS NECESSARY TO GET RADIUS BAR,MOVE TO MACHINE,POSITION IN SLOT;GET RADIUS BAR,REMOVE BAR FROM MACHINE,AND ASIDE BAR ENDS-WITH RELEASE OF BAR
AF	816	MAA	147	MSUMP01	91	MACHINE(FLAME CUTTING),PLACE ON RING STARTS-WITH REACH TO MACHINE INCLUDES-ALL THE MOTIONS NECESSARY TO GRASP THE MACHINE,LIFT AND PLACE MACHINE ON RING, RELEASE MACHINE,GET RADIUS BAR,POSITION RADIUS BAR IN PUNCH MARK,RELEASE MACHINE ENDS-WITH RELEASE MACHINE CONDITIONS-RADIGRAPH TYPE MACHINE
NF	816	MAA	3344	MSURP01	128	RING(FLAME CUTTING MACHINE),POSITION ON PLATE TO BURN CIRCLES STARTS-WITH RING IN HAND,REACH TO PLATE INCLUDES-ALL THE MOTIONS NECESSARY TO GET PLATE,PLACE PLATE FOR BURNING,RELEASE PLATE AND REACH BACK TO PLATE ENDS-WITH HAND RETURNED TO PLATE CONDITIONS-RADIGRAPH TYPE MACHINE-MOVE PLATE
AF	816	MAA	145	MSUSA01	65	SPEED DIAL(FLAME CUTTING MACHINE),ADJUST STARTS-WITH REACH TO DIAL INCLUDES-ALL THE MOTIONS NECESSARY TO GRASP AND TURN DIAL TO SPEED LETTER,POSITION DIAL TO LINE,RELEASE DIAL ENDS-WITH RELEASE DIAL CONDITIONS-RADIGRAPH TYPE MACHINE
AF	816	MAA	151	MSUTP01	103	TORCH ARM(FLAME CUTTING MACHINE),POSITION FOR BURNING CIRCLES OR STRAIGHT LINES STARTS-WITH REACH TO ADJUSTMENT KNOB INCLUDES-ALL THE MOTIONS NECESSARY TO ADJUST ARM TO CHALK LINE,CHECK POSITION OF ARM AND MACHINE BY MOVING IN CIRCLE BY HAND,RELEASE MACHINE ENDS-WITH RELEASE MACHINE CONDITIONS-RADIGRAPH TYPE MACHINE
NF	816	MAA	1288	MSUWR01	155	WHEEL(FLAME CUTTING MACHINE),REMOVE STARTS-WITH REACH(SIMO)TO MACHINE AND WING NUT INCLUDES-ALL MOTIONS NECESSARY TO HOLD MACHINE WITH LEFT AND LOOSEN WING NUT WITH RIGHT HAND,RELEASE MACHINE WITH LEFT HAND AND GRASP LEFT LEVER,MOVE LEVER AND REMOVE WHEEL, LOWER MACHINE,RELEASE WHEEL ASIDE ENDS-WITH RELEASE WHEEL CONDITIONS-RADIGRAPH TYPE MACHINE

# DEFENSE WORK MEASUREMENT STANDARD TIME DATA ELEMENTS

DATA SOURCE	OCCUP- ATION	QUALITY	SOURCE CODE	DWMSTOP ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION
AF	82X	MAA	MDE-2D1	MDAC101	586	COVER(RACEWAY BASE SECTION),INSTALL STARTS-WITH COVER IN HAND INCLUDES-ALL THE MOTIONS NECESSARY TO MOVE THE COVER TO THE BASE SECTION,INSERT LEADING CORNER OF COVER INTO CHANNEL,HOLD CORNER IN CHANNEL AND INSERT TRAILING EDGE OF SAME SIDE INTO CHANNEL AND HOLD,RELEASE LEADING CORNER WITH RIGHT HAND AND GRASP AND HOLD CENTER WITH PALM AND THUMB,RELEASE TRAILING CORNER WITH LEFT HAND AND GET SCREWDRIVER FROM BELT KIT, INSERT SCREWDRIVER BETWEEN COVER AND BASE SECTION OF OPPOSITE SIDE AND HOLD LEVERAGE, RELEASE COVER WITH RIGHT HAND,GET Mallet FROM BELT KIT,HAMMER SECOND EDGE INTO CHANNEL, RETURN Mallet TO BELT KIT,REMOVE AND ASIDE SCREWDRIVER ENDS-WITH RETURN SCREWDRIVER TO BELT KIT CONDITIONS-BASE SECTION AVERAGE FOUR FEET LONG
AF	82X	MAA	MDE-2S1	MDALC01	64	LUG(TERMINAL),CONNECT TO SWITCH STARTS-WITH SWITCH ASSEMBLY IN HAND(LEFT) INCLUDES-ALL THE MOTIONS NECESSARY TO REACH RIGHT HAND TO RACEWAY AND GRASP A CONDUCTOR, MOVE CONDUCTOR(WITH LUG TERMINAL)AND INSERT IN SWITCH,PUSH CLAMP SCREW WITH THUMB OF LEFT HAND,RELEASE CONDUCTOR ENDS-WITH SWITCH ASSEMBLY IN LEFT HAND
AF	82X	MAA	MDE-3Q1	MDASI01	65	SOCKET(LAMP),INSERT IN REFLECTOR FITTING STARTS-WITH SOCKET IN LEFT HAND,RIGHT HAND HOLDING ASSEMBLY INCLUDES-ALL THE MOTIONS NECESSARY TO MOVE SOCKET TO FITTING AND POSITION WITH RIGHT HAND,HOLD SOCKET TO FITTING AND REACH TO FITTING WITH LEFT HAND,GRASP AND HOLD FITTING AND SOCKET BETWEEN THUMB AND FOREFINGER, RELEASE HOLD WITH RIGHT HAND,REGRAASP SOCKET AND FITTING AND ALIGN AND PRESS TOGETHER WITH BOTH HANDS,RELEASE RIGHT HAND,HOLD WITH LEFT HAND ENDS-WITH LEFT HAND HOLDING ASSEMBLY CONDITIONS-LEECCRAFT SOCKET
NF	82X	MAF	802/804	MJPFUXX	VARIABLE	FISHTAPE(ELECTRICAL),UNWRAP FROM AND WRAP ON REEL,PER FOOT STARTS-WITH REEL IN HAND INCLUDES-ALL MOTIONS NECESSARY TO GET END OF TAPE,PULL OUT SIX-INCH LENGTH,RELEASE TAPE,GET END,AND PULL OUT SIX-INCH LENGTH;AND GET FISHTAPE REEL,AND WRAP TAPE ON REEL ENDS-WITH FISHTAPE IN HAND CASE 01 FIRST FOOT 02 EACH ADDITIONAL FOOT
NF	82X	MAF	847	MJPOP01	187	OILER,PREPARE FOR FILLING STARTS-WITH REACH TO SLIDE COVER ON OILER INCLUDES-ALL MOTIONS NECESSARY TO MOVE COVER ASIDE,PICK UP FUNNEL,PLACE IN OILER,GET OIL CONTAINER,MOVE CONTAINER INTO POSITION TO POUR,MOVE CONTAINER AWAY,MOVE FUNNEL AWAY, AND REPLACE COVER ENDS-WITH RELEASE OF COVER CONDITIONS-TIME FOR POURING OIL NOT INCLUDED. APPLICABLE TO OILERS SUCH AS THOSE FOUND ON ELECTRIC FANS AND BLOWERS
NF	82X	MAF	2396	MJPST01	161	SWITCH,TURN OFF OR ON,BRANCH LIGHTING CIRCUIT STARTS-WITH REACH TO PANEL DOOR INCLUDES-ALL MOTIONS NECESSARY TO OPEN DOOR, LOCATE SWITCH,TURN SWITCH OFF OR ON,AND CLOSE DOOR ENDS-WITH RELEASE OF DOOR CONDITIONS-DOES NOT INCLUDE TIME TO LOOK AT PANEL SCHEMATIC TO DETERMINE SWITCH NUMBER

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NF	82X	MAF	876	SNFTA01	443	TAPE, APPLY TO WIRE SPLICE STARTS-WITH REACH TO ROLL OF TAPE INCLUDES-ALL MOTIONS NECESSARY TO OBTAIN A 10-INCH LENGTH OF TAPE FROM ROLL, ASIDE ROLL OF TAPE, POSITION TAPE TO WIRE SPLICE, WRAP SPLICE SIX REVOLUTIONS, AND PRESS TAPE TO SPLICE ENDS-WITH RELEASE OF TAPED SPLICE
FFD	82X	MAA	KALED10	SNFTRO1	157	TIE (SPOT), REMOVE STARTS-WITH REACH TO GET TOOLS (CUTTER) INCLUDES-ALL THE MOTIONS NECESSARY TO GET CUTTER WITH RIGHT HAND, GRASP WIRE WITH LEFT HAND, CUT LINE WITH CUTTER (TWO CUTS), REMOVE LACING, ASIDE CUTTER AND LACING ENDS-WITH ASIDE CUTTER
FFD	82X	MAA	KALEWAX	SNFWCXX	VARIABLE	WIRE BUNDLE, COIL AND TIE STARTS-WITH REACH TO WIRE BUNDLE INCLUDES-ALL THE MOTIONS NECESSARY TO GET WIRE BUNDLE, COIL WIRE, GET AND UNWIND ONE FOOT OF LACING CORD, TIE COIL OF WIRE BUNDLE WITH THREE KNOTS, CUT LACING, ASIDE CUTTER, ASIDE WIRE BUNDLE COIL ENDS-WITH COIL ASIDE CONDITIONS-USE WHEN WIRE BUNDLE IS COILED AND SECURED TO EXISTING WIRE BUNDLE OR COILED FOR STORAGE-SPOT TIE IN THREE PLACES CASE 01 COIL AND TIE FIRST OR ONLY THREE FEET OF WIRE 1200 138 02 COIL EACH ADDITIONAL THREE FEET OF WIRE
FFD	82X	MAA	KALEA13	SNFWT01	1838	WIRE BUNDLE, TAPE AND TIE STARTS-WITH REACH TO ROLL OF TAPE INCLUDES-ALL THE MOTIONS NECESSARY TO GET ROLL OF TAPE, GET END OF TAPE AND UNROLL, CUT TAPE, ASIDE TAPE ROLL AND CUTTER, WRAP TAPE ON WIRE BUNDLE, GET AND UNWIND ONE FOOT OF LACING CORD, TIE TWO KNOTS ON TAPE AROUND WIRE BUNDLE, CUT CORD AND ASIDE CUTTER ENDS-WITH ASIDE CUTTER CONDITIONS-WRAP 24 INCHES OF INSULATING TAPE ON SIX INCHES OF WIRE BUNDLE, TIE IN TWO PLACES
NF	82X	MAF	828	MOHB101	914	BOX (JUNCTION), INSTALL ON CONDUIT STARTS-WITH GET LOCKNUT INCLUDES-ALL MOTIONS NECESSARY TO INSTALL LOCKNUT ON END OF CONDUIT (TEN THREADS), GET JUNCTION BOX, PLACE BOX ON END OF CONDUIT, GET SECOND LOCKNUT, PLACE ON END OF CONDUIT, TURN DOWN SIX THREADS BY HAND, GET SCREWDRIVER, GET HAMMER, PLACE SCREWDRIVER TO LOCK NUT INSIDE BOX, STRIKE SCREWDRIVER WITH HAMMER UNTIL NUT IS TIGHT, AND ASIDE SCREWDRIVER AND HAMMER ENDS-WITH RELEASE OF SCREWDRIVER AND HAMMER CONDITION-TIME TO REMOVE KNOCKOUT PLUG FROM JUNCTION BOX NOT INCLUDED
NF	82X	MAF	848	MOHPR01	90	PAPER, REMOVE FROM CONDUCTOR AFTER OUTER INSULATION HAS BEEN STRIPPED STARTS-WITH REACH TO PAPER INCLUDES-ALL MOTIONS NECESSARY TO UNTWIST AND REMOVE PAPER WRAPPING FROM CONDUCTOR ENDS-WITH ASIDE PAPER
NF	82X	MAF	910	MOHWA01	70	WIRE, ALIGN FOR FORMING IN ELECTRICAL BOX STARTS-WITH REACH TO WIRE INCLUDES-ALL MOTIONS NECESSARY TO APPLY PRESSURE AND MOVE INTO ALIGNMENT IN BOX. ALSO INCLUDES VISUAL CHECK OF ALIGNMENT ENDS-WITH RELEASE OF WIRE

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DATA SOURCE	OCCUP- ATION	QUALITY	SOURCE CODE	DWMSTOP ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION
NF	82X	MAF	911/913	MOHWBXX	VARIABLE	WIRE,BEND 90 DEGREES FOR FORMING IN ELECTRICAL BOX STARTS-WITH REACH TO WIRE INCLUDES-ALL MOTIONS NECESSARY TO MAKE 90-DEGREE BEND BY HAND AND TO CHECK ALIGNMENT ENDS-WITH BEND COMPLETED CASE 01 BEND NO.10 WIRE CASE 02 BEND NO.4 TO NO.2 WIRE
					99 140	
NF	82X	MAF	946	MOHWRO1	1611	WRAPPING(PAPER),REMOVE FROM COIL OF WIRE STARTS-WITH KNIFE IN HAND INCLUDES-ALL MOTIONS NECESSARY TO BEND TO COIL OF WIRE,CUT PAPER WRAPPING,ASIDE KNIFE TO TOOL POUCH,LIFT COIL ON EDGE,AND UNWRAP PAPER FROM COIL ENDS-WITH ARISE
FFD	82X	MAA	KALEA14	SOHPP01	1393	PLUG/RECEPTACLE,PLACE IN PLASTIC BAG STARTS-WITH REACH TO GET BAG INCLUDES-ALL THE MOTIONS NECESSARY TO GET BAG, OPEN AND PLACE PLUG/RECEPTACLE IN BAG,GET LACING CORD AND UNWIND ONE FOOT,TIE BAG IN TWO PLACES,CUT CORD,ASIDE SPOOL AND CUTTER ENDS-WITH ASIDE CUTTER
NF	82X	MAF	880	MTLBC01	253	BANDING,CUT ON REEL OF WIRE,CABLE,OR SIMILAR STARTS-WITH REACH TO SCREWDRIVER INCLUDES-ALL MOTIONS NECESSARY TO GET SCREWDRIVER FROM BELT KIT,INSERT SCREWDRIVER UNDER BANDING,STRETCH BANDING,RETURN SCREWDRIVER TO KIT,GET PLIERS,CUT BANDING,AND RETURN PLIERS TO BELT KIT ENDS-WITH RELEASE OF PLIERS
NF	82X	MAF	2660	MTLCRO1	175	CONDUIT,REAM END,ONE INCH DIAMETER,HAND REAMER STARTS-WITH REAMER IN HAND INCLUDES-ALL MOTIONS NECESSARY TO PLACE REAMER IN END OF CONDUIT,REAM AND REMOVE REAMER ENDS-WITH REAMER IN HAND
NF	82X	MAF	800	MTLFU01	68	FISHTAPE(ELECTRICAL),USE,FEED INTO CONDUIT STARTS-WITH FISHTAPE IN HAND INCLUDES-ALL MOTIONS NECESSARY TO PUSH ONE FOOT OF FISHTAPE INTO CONDUIT ENDS-WITH HAND ON FISHTAPE
NF	82X	MAF	805	MTLFU02	48	FISHTAPE(ELECTRICAL),USE,DISENGAGE TWO TAPES STARTS-WITH SIMO REACH TO TWO FISHTAPES INCLUDES-ALL MOTIONS NECESSARY TO SEPARATE TWO FISHTAPES BY UNHOOKING ENDS-WITH ASIDE FISHTAPES
NF	82X	MAF	819	MTLHC01	85	HOLE,CUT IN CARDBOARD CONTAINER WITH KNIFE STARTS-WITH KNIFE IN HAND INCLUDES-ALL MOTIONS NECESSARY TO CUT HOLE APPROXIMATELY FOUR INCHES IN DIAMETER IN CARDBOARD CONTAINER AND ASIDE CARDBOARD DISC ENDS-WITH KNIFE IN HAND CONDITION-APPLICABLE TO OPENING COIL OF ELECTRICAL WIRE OR SIMILAR
AF	82X	MAF	254	MTLHR01	134	HICKEY,REPOSITION ON CONDUIT STARTS-WITH STOOP TO CONDUIT INCLUDES-ALL MOTIONS NECESSARY TO ROTATE CONDUIT,POSITION HICKEY TO BEND MARK,AND ARISE ENDS-WITH HAND ON HICKEY HANDLE



# DEFENSE WORK MEASUREMENT STANDARD TIME DATA ELEMENTS

DATA SOURCE	OCCUP- ATION	QUALITY	SOURCE CODE	OWMSTOP ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION
NF	82X	MAF	839	MTLLC01	83	LUG(TERMINAL),CRIMP TO WIRE STARTS-WITH CRIMPING TOOL IN HAND INCLUDES-ALL MOTIONS NECESSARY TO GET TERMINAL LUG WITH CRIMPING TOOL AND CRIMP LUG TO WIRE ENDS-WITH ASIDE TOOL CONDITION-TIME TO PLACE LUG ON WIRE NOT INCLUDED
NF	82X	MAF	895	MTLLP01	96	LOOP,PLACE ON TERMINAL AND CLOSE WITH PLIERS STARTS-WITH MOVE LOOP TO TERMINAL,PLIERS IN HAND INCLUDES-ALL MOTIONS NECESSARY TO POSITION LOOP ON TERMINAL AND USE PLIERS TO CLOSE LOOP ON TERMINAL ENDS-WITH PLIERS IN HAND CONDITIONS-TIME FOR INITIAL BENDING OF LOOP NOT INCLUDED.APPLICABLE TO NO.8 OR SMALLER WIRE.
NF	82X	MAF	871	MTLS801	95	SPLICE,BEND PARALLEL TO CONDUCTOR WITH PLIERS STARTS-WITH PLIERS IN HAND INCLUDES-ALL MOTIONS NECESSARY TO BEND TWISTED WIRE SPLICE PARALLEL TO CONDUCTOR ENDS-WITH PLIERS IN HAND CONDITION-APPLICABLE TO NO.8 OR SMALLER WIRE
NF	82X	MAF	834	MTLSF01	413	SPLICE,FORM WITH PLIERS,PIGTAIL SPLICE STARTS-WITH PLIERS IN HAND,WIRES POSITIONED FOR TWISTING INCLUDES-ALL MOTIONS NECESSARY TO PLACE PLIERS ON WIRES AND TWIST TO FORM SPLICE ENDS-WITH PLIERS IN HAND CONDITIONS-APPLICABLE TO SPLICING ELECTRICAL FIXTURE LEADS
NF	82X	MAF	2699	MTLTC01	343	THREAD,CUT IN CONDUIT STARTS-WITH THREADER STARTED ON CONDUIT INCLUDES-ALL THE MOTIONS NECESSARY TO MOVE HANDLE,SET RATCHET AND MOVE HANDLE TO CUT ONE THREAD ENDS-WITH ONE THREAD CUT CONDITIONS-MAKE 1/5 REVOLUTION PER STROKE
NF	82X	MAF	921	MTLWD01	192	WIRE,DISCONNECT FROM FISHTAPE AFTER PULLING STARTS-WITH KNIFE IN HAND INCLUDES-ALL MOTIONS NECESSARY TO CUT TAPE WITH KNIFE,ASIDE KNIFE,REMOVE AND ASIDE TAPE, GET PLIERS,AND CUT WIRE ENDS-WITH ASIDE PLIERS
NF	82X	MAF	750	STLCBXX	VARIABLE	CONDUIT,BEND WITH HICKEY STARTS-WITH GET HICKEY INCLUDES-ALL MOTIONS NECESSARY TO STOOP TO CONDUIT,PLACE HICKEY ON CONDUIT,POSITION HICKEY TO BEND POINT,ARISE,PLACE FOOT ON CONDUIT,BEND CONDUIT,REPOSITION HICKEY AS NECESSARY,COMPLETE BEND,STOOP,AND REMOVE HICKEY FROM CONDUIT ENDS-WITH ARISE AND ASIDE HICKEY CASE 01 BEND 1/2 INCH RIGID CONDUIT 45 DEGREES 02 BEND 1/2 INCH RIGID CONDUIT 90 DEGREES 03 BEND 3/4 INCH RIGID CONDUIT 45 DEGREES 04 BEND 3/4 INCH RIGID CONDUIT 90 DEGREES 05 BEND 1 INCH RIGID CONDUIT 45 DEGREES 06 BEND 1 INCH RIGID CONDUIT 90 DEGREES 07 BEND STUB OFFSET IN RIGID CONDUIT 1 INCH OR LESS IN DIAMETER

726  
1092  
745  
1131  
791  
1226  
1205

# DEFENSE WORK MEASUREMENT STANDARD TIME DATA ELEMENTS

DATA SOURCE	OCCUP- ATION	QUALITY	SOURCE CODE	DWMSTOP ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION
FFD	82X	MAA	KALEW8X	STLPCXX VARIABLE		PLUG(COAXIAL), CUT FROM CABLE STARTS-WITH REACH TO CUTTERS INCLUDES-ALL THE MOTIONS NECESSARY TO GET CUTTERS, GET CABLE, POSITION CUTTERS(SPLIERS) TO CABLE AND CUT PLUG FROM CABLE, ASIDE PLUG AND CUTTERS ENDS-WITH ASIDE PLUG/CUTTERS 195 CASE 01 CUT FIRST OR SINGLE PLUG FROM CABLE 133 02 CUT EACH ADDITIONAL PLUG FROM CABLE
NF	82X	MAF	754	STLTBXX VARIABLE		TURING(ELECTRICAL METALLIC), BEND WITH MANUAL BENDER STARTS-WITH GET BENDER INCLUDES-ALL MOTIONS NECESSARY TO STOOP TO BENDER, PLACE BENDER ON ELECTRICAL METALLIC TUBING(EMT), POSITION BENDER TO BEND POINT, ARISE, PLACE FOOT ON TUBING TO HOLD, BEND TUBING, STOOP, REMOVE BENDER, AND ARISE ENDS-WITH ASIDE BENDER 519 CASE 01 BEND UP TO 1 INCH EMT 45 DEGREES 541 02 BEND UP TO 1 INCH EMT 90 DEGREES 791 03 BEND STUB OFFSET IN UP TO 1 INCH EMT (MAKE TWO 45-DEGREE BENDS).
NF	82X	MAF	860	MTPAP01	108	ARM(RAM), PULL TO FREE ANVIL, HYDRAULIC CONDUIT BENDER STARTS-WITH BEND AND REACH TO RAM ARM INCLUDES-ALL MOTIONS NECESSARY TO HOLD RAM JACK HOUSING WITH ONE HAND AND PULL RAM ARM WITH OTHER HAND ENDS-WITH RELEASE RAM ARM AND HOUSING AND ARISE
NF	82X	MAF	758	MTPCBXX VARIABLE		CONDUIT, BEND WITH HYDRAULIC BENDER STARTS-WITH STOOP TO CONDUIT BENDER INCLUDES-ALL MOTIONS NECESSARY TO GET HANDLE, PUMP HANDLE TO BEND CONDUIT, SHIFT CONDUIT IN BENDER AS NECESSARY, AND RELEASE HANDLE WHEN BEND IS COMPLETED ENDS-WITH ARISE FROM STOOP CONDITIONS-DOES NOT INCLUDE INSTALLATION IN OR REMOVAL FROM BENDER 1975 CASE 01 BEND 1 1/4 INCH CONDUIT 45 DEGREES 2920 02 BEND 1 1/4 INCH CONDUIT 90 DEGREES 2810 03 BEND 1 1/2 INCH CONDUIT 45 DEGREES 4256 04 BEND 1 1/2 INCH CONDUIT 90 DEGREES 5170 05 BEND 2 INCH CONDUIT 45 DEGREES 8976 06 BEND 2 INCH CONDUIT 90 DEGREES 12435 07 BEND 2 1/2 INCH CONDUIT 90 DEGREES 14216 08 BEND 3 INCH CONDUIT 90 DEGREES 28153 09 BEND 4 INCH CONDUIT 90 DEGREES
AF	82X	MAA	MOE-3J	MWHS01	120	SPLICE(CENTER), MAKE STARTS-WITH ONE WIRE IN EACH HAND INCLUDES-ALL THE MOTIONS NECESSARY TO PLACE END OF WIRE IN RIGHT HAND TO SPLICE POINT IN WIRE HELD BY LEFT HAND, TWIST END OF WIRE HELD BY RIGHT HAND AROUND OTHER WIRE TO MAKE ELECTRICALLY TIGHT, RELEASE WIRES ENDS-WITH RELEASE WIRE CONDITIONS-DOES NOT INCLUDE TAPING OR SOLDER- ING

DEFENSE WORK MEASUREMENT STANDARD TIME DATA ELEMENTS

DATA SOURCE	CCUP- ATION	QUALITY	SOURCE CODE	DWMSTDP ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION
FFD	82X	MAA	KALEW39	SWHSI01	1076	SPLICE(COAXIAL CABLE),INSTALL TO SHIELDED WIRE STARTS-WITH REACH TO WIRE INCLUDES-ALL THE MOTIONS NECESSARY TO GET WIRE AND KNIFE,CUT AND STRIP INSULATION,GET AND POSITION BARREL TO WIRE END,PUSH SHIELDING BACK,POSITION INNER BARREL TO WIRE END,GET AND PLACE TAPED SHIELD OVER INNER BARREL WITH HAND,GET OUTER BARREL AND PLACE OVER INNER BARREL WITH HAND,GET PLIERS,POSITION ON BARRELS,ALIGN BARRELS,GET CRIMPERS,CRIMP BARRELS,ASIDE CRIMPERS AND WIRE ASSEMBLY ENDS-ASIDE CRIMPERS AND WIRE ASSEMBLY
FFD	82X	MAA	KALEA05	SWHSM01	2367	SPLICE(TWO WIRES),MAKE WITH STAKE-ON PLIERS STARTS-WITH REACH TO WIRE INCLUDES-ALL THE MOTIONS NECESSARY TO GET WIRE AND STRIPPERS,STRIP ONE END OF TWO WIRES,ASIDE STRIPPERS,GET STAKE-ON PLIERS,GET SPLICE,PLACE SPLICE ON WIRE END(ONE WIRE),PLACE PLIERS ON SPLICE AND CRIMP,PALM PLIERS,GET,MEASURE AND CUT SPAGHETTI AND INSTALL OVER SPLICE,GET SECOND WIRE,STRAIGHTEN AND PLACE IN SPLICE, CRIMP SPLICE,PULL WIRES TO CHECK SPLICE,ASIDE CRIMPERS,SLIDE SPAGHETTI OVER SPLICE,UNWIND ONE FOOT OF LACING CORD,TIE KNOT ON EACH SIDE OF SPLICE AND OVER SPAGHETTI,CUT CORD,ASIDE CUTTER ENDS-WITH ASIDE CUTTER CONDITIONS-NON-SHIELDED WIRE
FFD	82X	MAA	KALE005	SWHSR01	151	SPLICE,REMOVE STARTS-WITH REACH TO CUTTER INCLUDES-ALL THE MOTIONS NECESSARY TO GET CUTTER,GRASP WIRE WITH OTHER HAND,MAKE FIRST CJT,MOVE CUTTER TO SECOND POINT AND CUT WIRE, ASIDE CUTTER,RELEASE WIRE ENDS-WITH ASIDE CUTTER
NF	821	MAF	853	MBMCP01	1513	POLE,CLIMB TO LOWER CROSSARM,APPROXIMATELY 30 FEET STARTS-WITH REACH TO POLE INCLUDES-ALL MOTIONS NECESSARY TO CLIMB POLE TO LOWER CROSSARM USING CLIMBING HOOKS ENDS-WITH CLIMB COMPLETED CONDITIONS-NO TIME INCLUDED FOR FASTENING OR UNFASTENING SAFETY BELT
NF	821	MAF	852	MBMCP02	686	POLE,CLIMB FROM LOWER TO UPPER CROSSARM STARTS-WITH GET HOLD ON POLE INCLUDES-ALL MOTIONS NECESSARY TO UNHOOK SAFETY BELT,CLEAR BELT FROM POLE,CLIMB THREE STEPS USING CLIMBING HOOKS,STEP ON LOWER CROSSARM,HOOK SAFETY BELT AROUND POLE,CLIMB THREE ADDITIONAL STEPS,AND POSITION SAFETY BELT ENDS-WITH CLIMB COMPLETED
NF	821	MAF	850	MBMPC01	402	POSITION,CHANGE HORIZONTALLY ON POLE STARTS-WITH REACH FOR NEW HOLD ON POLE INCLUDES-ALL MOTIONS NECESSARY TO DISENGAGE CLIMBING HOOK,MOVE AROUND POLE,SINK HOOK IN POLE,GET NEW HOLD,AND REPOSITION BELT ENDS-WITH POSITION CHANGED CONDITIONS-APPLICABLE TO MOVING UP TO 180 DEGREES AROUND POLE

# DEFENSE WORK MEASUREMENT STANDARD TIME DATA ELEMENTS

DATA SOURCE	OCCUP- ATION	QUALITY	SOURCE CODE	DWMSTOP ELEMENT	TNU VALUE	OPERATION/ELEMENT DESCRIPTION
NF	821	MAF	2407	SBMPC01	5843	POLE,CLIMB TO AND DESCEND FROM LOWER CROSSARM STARTS-WITH BEND TO POLE CLIMBERS INCLUDES-ALL MOTIONS NECESSARY TO PUT ON POLE CLIMBERS,ARISE PUT ON SAFETY BELT,CLIMB APPROXIMATELY 30 FEET UP POLE,HOOKE SAFETY BELT AROUND POLE,REMOVE HANDLINE FROM SAFETY BELT AND HOOK ON CROSSARM;REMOVE HANDLINE,HOOKE ON BELT,REMOVE BELT FROM POLE,DESCEND POLE,REMOVE SAFETY BELT, AND REMOVE POLE CLIMBERS ENDS-WITH ASIDE CLIMBERS
NF	821	MAF	716	MCLSC01	335	SHEATHING(LEAD CABLE),CLEAN BY SCRAPING STARTS-WITH SCRAPER IN HAND INCLUDES-ALL MOTIONS NECESSARY TO MOVE SCRAPER TO CABLE AND CLEAN THREE SQUARE INCHES ENDS-WITH SHEATHING CLEANED CONDITION-CLEANING IS PREPARATORY TO FLUX APPLICATION FOR SPLICING
NF	821	MAF	2411/12	MJPSP01	546	SLEEVES(RUBBER LINEMAN'S),PUT ON AND TAKE OFF STARTS-WITH REACH TO STORAGE POUCH INCLUDES-ALL MOTIONS NECESSARY TO UNFASTEN SNAPS ON POUCH,REMOVE SLEEVES FROM POUCH,PLACE SLEEVE STRAP OVER BACK OF NECK,AND PLACE ARMS IN SLEEVES;AND REACH TO FIRST SLEEVE,REMOVE, REACH TO SECOND SLEEVE,REMOVE,ROLL SLEEVES, PLACE SLEEVES IN POUCH,AND CLOSE SNAPS ON POUCH ENDS-WITH RELEASE OF POUCH
NF	821	MAF	769	SNFC101	1411	CONNECTOR(SOLDERLESS),INSTALL,SPLIT BOLT TYPE STARTS-WITH REACH TO CONNECTOR INCLUDES-ALL MOTIONS NECESSARY TO REMOVE NUT FROM CONNECTOR,PLACE SPLIT BOLT OVER FIRST WIRE,START NUT ON BOLT,GET SECOND WIRE AND SLIDE INTO CONNECTOR,GET WRENCH FROM BELT KIT, TURN NUT WITH WRENCH,GET SECOND WRENCH FROM BELT KIT,PLACE ON BOLT TO HOLD,TIGHTEN NUT,AND RETURN EACH WRENCH TO BELT KIT ENDS-WITH RELEASE OF SECOND WRENCH
NF	821	MAF	701	MOHA101	2477	ANCHOR(AND ROD ASSEMBLY),INSTALL IN HOLE AND EXPAND ANCHOR STARTS-WITH REACH TO ASSEMBLY ON TRUCK INCLUDES-ALL MOTIONS NECESSARY TO REMOVE ASSEMBLY FROM TRUCK,CARRY ASSEMBLY SIX PAGES TO HOLE,PLACE ASSEMBLY IN HOLE AND POSITION, RETURN TO TRUCK,GET TAMPING BAR,RETURN TO HOLE,USE TAMPING BAR TO EXPAND ANCHOR,AND RETURN TAMPING BAR TO RACK ON TRUCK ENDS-WITH RELEASE OF BAR CONDITIONS-ASSEMBLY WEIGHS 44 POUNDS.TIME TO BACKFILL AND TAMP HOLE NOT INCLUDED.HOLE IS APPROXIMATELY SEVEN FEET DEEP.
NF	821	MAF	933	MOHBRO1	283	BELTING,REMOVE FROM LEAD SHEATHED CABLE STARTS-WITH REACH TO CUT END OF BELTING INCLUDES-ALL MOTIONS NECESSARY TO UNWRAP EIGHT REVOLUTIONS OF BELTING INSULATION FROM CABLE ENDS-WITH BELTING IN HAND CONDITION-TIME TO CUT BELTING NOT INCLUDED
NF	821	MAF	775	MOHC001	202	CUTOUT(FUSED),OPEN OR CLOSE ON POLE WITH DISCONNECT STICK STARTS-WITH REACH TO STICK ON HANDLINE INCLUDES-ALL MOTIONS NECESSARY TO GET LOOP ON HANDLINE,LIFT OVER END OF STICK,MOVE STICK TO EYE IN SWITCH,HOOKE STICK IN EYE,PULL SWITCH TO OPEN OR PUSH TO CLOSE,MOVE HOOK OUT OF EYE,AND MOVE STICK BACK TO HANDLINE ENDS-WITH RELEASE OF STICK CONDITIONS-TIME FOR CLIMBING AND DESCENDING POLE NOT INCLUDED

# DEFENSE WORK MEASUREMENT STANDARD TIME DATA ELEMENTS

DATA SOURCE	OCCUPATION	QUALITY	SOURCE CODE	OWNSTDP ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION
NF	821	MAF	2764	MOHER01	359	EQUIPMENT, RAISE OR LOWER ON POLE WITH HANDLINE STARTS-WITH REACH TO HANDLINE INCLUDES-ALL MOTIONS NECESSARY TO RAISE OR LOWER EQUIPMENT ATTACHED TO HANDLINE WITH HAND OVER HAND MOTIONS ENDS-WITH EQUIPMENT RAISED OR LOWERED CONDITIONS-NO TIME INCLUDED FOR ATTACHING OR REMOVING EQUIPMENT FROM HANDLINE OR FOR CLIMBING OR DESCENDING POLE. APPLICABLE TO TOOLS, TOOL BAG, MATERIAL, ETC. WITH ENW TO 15 POUNDS RAISED TO OR LOWERED FROM HEIGHT OF 30 FEET
NF	821	MAF	934	MOHFR01	95	FILLER, REMOVE AND CUT, LEAD SHEATHED CABLE STARTS-WITH REACH TO FILLER, KNIFE IN HAND INCLUDES-ALL MOTIONS NECESSARY TO PULL FILLER OUT APPROXIMATELY ONE FOOT AND CUT WITH KNIFE ENDS-WITH FILLER AND KNIFE IN HAND
NF	821	MAF	820	MOHHI01	257	HOOD (RUBBER INSULATOR), INSTALL ON ENERGIZED LINE STARTS-WITH REACH TO INSULATOR HOOD IN BAG INCLUDES-ALL MOTIONS NECESSARY TO GET INSULATOR FROM BAG, CHANGE POSITION ON POLE, SINK CLIMBING HOOK INTO POLE, MOVE HOOD TO INSULATOR, AND PLACE HOOD OVER INSULATOR ENDS-WITH RELEASE OF INSULATOR CONDITION-TIME FOR CLIMBING POLE NOT INCLUDED
NF	821	MAF	821	MOHHP01	324	HOSE (RUBBER), PLACE ON ENERGIZED LINE STARTS-WITH REACH TO HOSE IN BAG INCLUDES-ALL MOTIONS NECESSARY TO GET HOSE, CHANGE POSITION ON POLE, SINK CLIMBING HOOK INTO POLE, MOVE HOSE TO WIRE, AND PUSH HOSE DOWN WIRE TO PROVIDE PROTECTION DURING ENSUING WORK ENDS-WITH RELEASE OF HOSE CONDITION-TIME FOR CLIMBING POLE NOT INCLUDED. HOSE APPROXIMATELY FIVE FEET LONG.
NF	821	MAF	702	MTFAA01	759	ANCHOR, ASSEMBLE TO ROD STARTS-WITH REACH TO ANCHOR IN RACK ON TRUCK INCLUDES-ALL MOTIONS NECESSARY TO REMOVE ANCHOR FROM TRUCK, GET ROD, SCREW ANCHOR ONTO ROD, GET WIRE CUTTERS FROM BELT KIT, CUT FOUR TIE WIRES, REPLACE CUTTERS IN BELT ENDS-WITH RELEASE OF CUTTERS CONDITIONS-ANCHOR WEIGHS 28 POUNDS. 1"X10" ROD WEIGHS 16 POUNDS
NF	821	MAF	856	MTLPD01	157	PIKE, DRIVE INTO POLE, APPROXIMATELY 20 FEET ABOVE GROUND STARTS-WITH PIKE IN HAND INCLUDES-ALL MOTIONS NECESSARY TO LIFT PIKE, PUSH INTO POLE, AND WEDGE PIKE AGAINST GROUND ENDS-WITH RELEASE OF PIKE CONDITION-PIKE WEIGHS APPROXIMATELY 20 POUNDS
NF	821	MAF	854	MTLPR01	415	POLE, ROTATE WITH CANT HOOK STARTS-WITH REACH TO CANT HOOK INCLUDES-ALL MOTIONS NECESSARY TO GET HOOK, OBSERVE POLE TO ESTIMATE AMOUNT OF TURN REQUIRED, ROTATE POLE WITH HOOK, CHECK POSITION, ROTATE POLE, CHECK POSITION, STOOP, REMOVE CANT HOOK FROM POLE, AND ARISE ENDS-WITH ASIDE CANT HOOK CONDITIONS-RESISTANCE TO TURN IS APPROXIMATELY 40 POUNDS ENW.

DEFENSE WORK MEASUREMENT STANDARD TIME DATA ELEMENTS

DATA SOURCE	OCCUP-ATION	QUALITY	SOURCE CODE	DWMSTDP ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION
NF	821	MAF	817	STLSD01	609	STEP(POLE),DRIVE INTO POLE WITH HAMMER STARTS-WITH REACH TO POLE STEP INCLUDES-ALL MOTICNS NECESSARY TO GET HAMMER, DRIVE STEP INTO POLE,ASIDE HAMMER,GET WRENCH, AND TURN STEP TO ALIGN ENDS-WITH ASIDE WRENCH
FFD	823	TAA	KALEA09	SWHJ101	7306	JACK/PLUG(INTERPHONE),INSTALL STARTS-WITH REACH TO GET TOOL INCLUDES-ALL THE MOTIONS NECESSARY TO GET SCREWDRIVER AND POSITION TO JACK SLOT,BREAK INNER PART OF JACK LOOSE,DISENGAGE INNER PART FROM SHELL,OPEN VISE,PLACE RECEPTACLE IN VISE AND TIGHTEN,GET AND PLUG IN SOLDERING IRON, ASIDE IRON TO HOLDER,GET EXTENSION CORD AND KNIFE,CUT AND REMOVE OUTER COVERING AT END OF CORD,ASIDE KNIFE,GET STRIPPERS AND STRIP FOUR WIRES,ASIDE STRIPPERS,GET SOLDERING IRON AND TIN EACH WIRE END,ASIDE IRON AND CORD,GET PLIERS AND GRASP WIRE,MOVE WIRE TO AND PLACE IRON,SOLDER EACH WIRE IN RECEPTACLE,ASIDE IRON AND REACHSIMOITO VISE HANDLE AND CABLE,OPEN VISE AND REMOVE CABLE,GET STRING,LOOP STRING ON CABLE AND PULL TIGHT,PLACE KNOT ON HOOK, MOVE SHELL TO RECEPTACLE AND FIT TOGETHER, GET SCREWDRIVER AND TIGHTEN SHELL TO RECEPTA- CLE,ASIDE SCREWDRIVER,JACK/PLUG AND CABLE ENDS WITH ASIDE JACK/CABLE CONDITIONS-FOUR-WIRE EXTENSION CORD
FFD	823	MAA	KALED09	SWHJR01	2376	JACK/PLUG(INTERPHONE),REMOVE STARTS-WITH REACH TO GET JACK AND PLIERS(SIMO) INCLUDES-ALL THE MOTIONS NECESSARY TO GET AND MOVE PLIERS AND JACK TO WORK AREA,GRASP JACK WITH PLIERS,GET SCREWDRIVER,LOOSEN SHELL FRON INNER PART,ASIDE SCREWDRIVER,REMOVE INNER PART(RECEPTACLE)FROM SHELL,ASIDE SHELL,PLIERS AND RECEPTACLE,OPEN VISE,PLACE RECEPTACLE IN VISE AND TIGHTEN,GET SOLDERING IRON,PLACE IN HOLDER,PLUG IN,GET PLIERS,GRASP WIRE WITH PLIERS,GET SOLDERING IRON,UNSOLDER FOUR WIRES, ASIDE IRON,STRAIGHTEN WIRES,DISENGAGE WIRES, ASIDE PLIERS AFTER FOURTH WIRE IS DISENGAGED, UNPLUG SOLDERING IRON,LOOSEN VISE,REMOVE AND ASIDE RECEPTACLE ENDS-WITH ASIDE RECEPTACLE CONDITIONS-FOUR-WIRE EXTENSION CORD
AF	824	MAA	MDE-3Y	MDALI01	103	LAMP(FLUCRESCENT),INSTALL IN LAMP HOLDER STARTS-WITH LAMP IN HANDS INCLUDES-ALL THE MOTIONS NECESSARY TO MOVE LAMP AND POSITION FIRST END TO LAMP HOLDER, POSITION SECOND END TO HOLDER,MOVE EACH END TO SEAT,TURN LAMP TO LOCK,RELEASE LAMP ENDS-WITH RELEASE LAMP IN HOLDER
AF	824	MAA	MDE-4M2	MDAPI01	72	PANEL(ELECTRICAL METER),INSTALL STARTS-WITH PANEL IN HAND INCLUDES-ALL THE MOTIONS NECESSARY TO MOVE METER PANEL TO CHASSIS,POSITION PANEL AND ALIGN SCREW HOLES,CHECK ALIGNMENT ENDS-WITH CHECK ALIGNMENT CONDITIONS-4X8 INCH PANEL
AF	824	MAA	MDE-4M2	MDAPR01	42	PANEL(ELECTRICAL METER),REMOVE STARTS-WITH LEFT HAND HOLDING METER PANEL AT CHASSIS INCLUDES-ALL THE MOTIONS NECESSARY TO REACH TO PANEL WITH RIGHT HAND,GRASP AND REMOVE PANEL, RELEASE RIGHT HAND,TURN PANEL WITH LEFT HAND TO EXPOSE WIRING ENDS-WITH WIRING EXPOSED,PANEL IN HAND CONDITIONS-4X8 INCH PANEL

DEFENSE WORK MEASUREMENT STANDARD TIME DATA ELEMENTS

DATA SOURCE	OCCUPATION	QUALITY	SOURCE CODE	DWNSTOP ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION
AF	824	MAA	MDE-3R1	SDAL101	524	LEADS(LAMP SOCKET), INSERT THROUGH GROMMET STARTS-WITH REACH TO GET LAMP ASSEMBLY INCLUDES-ALL THE MOTIONS NECESSARY TO PICK UP LAMP ASSEMBLY AND TURN WITH RIGHT HAND, REACH TO FIRST WIRE LEAD WITH LEFT HAND, MOVE WIRE TO GROMMET AND INSERT LEAD THROUGH GROMMET, RELEASE WIRE, TURN LAMP ASSEMBLY 90 DEGREES AND REACH TO WIRE END THROUGH GROMMET, GRASP END AND PULL WIRE THROUGH GROMMET WITH CARE, RELEASE WIRE, TURN LAMP 90 DEGREES, REACH TO END OF SECOND WIRE, MOVE WIRE TO GROMMET AND INSERT IN GROMMET, RELEASE WIRE, TURN LAMP 90 DEGREES, GRASP END OF SECOND WIRE AND PULL THROUGH GROMMET WITH CARE, INSPECT GROMMET SEATING, ASIDE LAMP ASSEMBLY ENDS-WITH LAMP ASIDE CONDITIONS-INCANDESCENT LAMP-RUBBER GROMMET
NF	824	MAF	712	MOHC101	132	CABLE, INSERT END IN BOX CONNECTOR STARTS-WITH REACH TO END OF CABLE INCLUDES-ALL MOTIONS NECESSARY TO POSITION END OF CABLE TO CONNECTOR, GET END OF CABLE WITH OTHER HAND, AND PULL CABLE INTO BOX ENDS-WITH RELEASE OF CABLE CONDITION-APPLICABLE TO BX, ROMEK, OR SIMILAR
AF	824	MAA	MDE-4D	MWHW101	50	WIRE, INSERT THROUGH CLIP IN RACEWAY STARTS-WITH WIRE IN HAND INCLUDES-ALL THE MOTIONS NECESSARY TO MOVE WIRE THROUGH CLIP WITH RIGHT HAND, GRASP END WITH LEFT HAND AND PULL WIRE THROUGH RACEWAY, GUIDE WIRE WITH RIGHT HAND ENDS-WITH WIRE THROUGH RACEWAY(10 INCHES) AND HELD BY BOTH HANDS
FFD	825	MAA	KALEA17	SCPCI01	1781	CLAMP, INSTALL ON WIRE BUNDLE AND SECURE TO BULKHEAD STARTS-WITH REACH TO GET CLAMP INCLUDES-ALL THE MOTIONS NECESSARY TO GET CLAMP, MOVE TO PLIERS AND GRASP, TWIST PLIERS TO SHAPE CLAMP, ASIDE PLIERS, OPEN CLAMP, GET WIRE BUNDLE, PLACE CLAMP ON BUNDLE, CLOSE CLAMP, GET PLIERS AND FORM CLAMP ON BUNDLE, ASIDE PLIERS AND GET SCREWDRIVER AND PLACE IN CLAMP HOLE, PLACE CLAMP AND WIRE BUNDLE TO HOLE, PUT SCREW IN HOLE, PUT ON NUT, GET WRENCH AND TIGHTEN NUT, ASIDE TOOLS, CHECK CLAMP FOR SECURITY ENDS-WITH CLAMP CHECKED, TOOLS ASIDE CONDITIONS-SECURE BUNDLE TO BULKHEAD AND SIMILAR
FFD	825	MAA	KALED17	SCPCRO1	1173	CLAMP(ECT), REMOVE FROM WIRE BUNDLE STARTS-WITH REACH TO SCREWDRIVER INCLUDES-ALL THE MOTIONS NECESSARY TO GET SCREWDRIVER, PALM, GET WRENCH, PLACE SCREW DRIVER IN SCREW SLOT AND WRENCH ON NUT, LOOSEN SCREW, REMOVE NUT, ASIDE SCREWDRIVER AND WRENCH, GET PLIERS, SQUEEZE SCREW FROM CLAMP, PALM PLIERS, REMOVE SCREW FROM CLAMP, PALM SCREW, GRASP AND SPREAD CLAMP, REMOVE CLAMP FROM WIRE BUNDLE, ASIDE CLAMP, SCREW AND PLIERS(SIMO) ENDS-WITH CLAMP, SCREW AND PLIERS ASIDE

# DEFENSE WORK MEASUREMENT STANDARD TIME DATA ELEMENTS

DATA SOURCE	OCCUPATION	QUALITY	SOURCE CODE	DWMSTD ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION
FFD	825	MAA	KALED18	SCPCR02	1026	CLAMP, REMOVE FROM BULKHEAD STARTS-WITH REACH TO TOOLS INCLUDES-ALL THE MOTIONS NECESSARY TO GET SCREWDRIVER AND WRENCH, LOOSEN SCREW AND NUT HOLDING CLAMP TO BULKHEAD, ASIDE TOOLS, REMOVE AND ASIDE NUT, PULL CLAMP AND CABLE AWAY FROM BULKHEAD, REMOVE SCREW FROM CLAMP HOLE, PUT NUT BACK ON SCREW, RUN DOWN WITH FINGERS ENDS-WITH NUT ON SCREW CONDITIONS-APPLIES ONLY TO CLAMPS REMOVED FOR ACCESS AND LEFT ON WIRE BUNDLE
FFD	825	MAA	KALEA18	SCPWC01	1274	WIRE BUNDLE, CLAMP TO BULKHEAD STARTS-WITH REACH TO CLAMP AND NUT(SIMO) INCLUDES-ALL THE MOTIONS NECESSARY TO REMOVE SCREW AND NUT FROM CLAMP, POSITION CLAMP ALREADY ON BUNDLE TO MOUNTING HOLE, INSERT SCREW AND PUT NUT ON SCREW, GET WRENCH AND SCREWDRIVER, RUN DOWN AND TIGHTEN NUT, PALM TOOLS, CHECK CLAMP FOR SECURITY, ASIDE TOOLS ENDS-WITH ASIDE TOOLS CONDITIONS-APPLIES ONLY TO CLAMPS REMOVED FOR ACCESS AND LEFT ON WIRE BUNDLE
FFD	825	MAA	KALEW33	SHHW01	1596	WIRE/WIRE BUNDLE, ROUTE IN AIRCRAFT STARTS-WITH REACH TO WIRE/WIRE BUNDLE INCLUDES-ALL THE MOTIONS NECESSARY TO GET WIRE OR WIRE BUNDLE, MOVE TO WORK AREA AND PUSH INTO POSITION, BEND WIRE TO POSITION, INSERT WIRE/WIRE BUNDLE THROUGH OBSTRUCTION, GRASP END OF WIRE/WIRE BUNDLE, FEEL FOR END, GRASP AND PULL THROUGH LOOP, BEND WIRE, PULL WIRE/WIRE BUNDLE THROUGH OBSTRUCTION, GET AND UNWIRE ONE FOOT OF LACING CORD, TIE WIRE/WIRE BUNDLE IN TWO SPOTS, CUT CORD, ASIDE CUTTER ENDS-WITH KNOT TIED(TWO); CUTTER ASIDE CONDITIONS-PER FOOT ROUTED-USE WHEN ROUTING A BUNDLE OR WHEN ROUTING A WIRE ALONG EXISTING BUNDLE
FFD	825	MAA	KALEW43	SHHW01	1296	WIRE BUNDLE, TIE TO TOMBSTONE STARTS-WITH REACH TO LACING CORD INCLUDES-ALL THE MOTIONS NECESSARY TO GET LACING CORD, UNWIND ONE FOOT, SECURE WIRE BUNDLE TO TOMBSTONE AND TIE IN TWO PLACES, CUT LACING CORD AND ASIDE CUTTER ENDS-WITH ASIDE CUTTER, TIE FINAL KNOT
NF	829	MAF	809	MOHFIXX	VARIABLE	FUSE(ELECTRICAL), INSTALL STARTS-WITH FUSE IN HAND INCLUDES-ALL MOTIONS NECESSARY TO INSTALL FUSE IN HOLDER ENDS-WITH RELEASE OF FUSE 70 CASE 01 CARTRIDGE TYPE FUSE, FERRULE CONTACT, 3-60 AMPERE 115 02 CARTRIDGE TYPE FUSE, KNIFE BLADE CONTACT, 61-600 AMPERE 180 03 PLUG TYPE FUSE, 15-30 AMPERE
NF	829	MAF	3266	MOHSR01	144	STARTER(FLUORESCENT), REPLACE IN FIXTURE STARTS-WITH REACH TO STARTER INCLUDES-ALL MOTIONS NECESSARY TO REMOVE STARTER, TRANSFER STARTER TO OTHER HAND, GET NEW STARTER HELD IN OTHER HAND, AND INSTALL STARTER ENDS-WITH RELEASE OF STARTER CONDITIONS-NO TIME INCLUDED FOR TESTING STARTER, STARTER IN UNRESTRICTED LOCATION.



DEFENSE WORK MEASUREMENT STANDARD TIME DATA ELEMENTS

DATA SOURCE	OCCUP- ATION	QUALITY	SOURCE CODE	DWMSTD ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION
NF	829	MAF	705/6/7	STLBRXX	VARIABLE	<p>BULB, REPLACE WITH BULB CHANGER  STARTS-WITH CHANGER IN HAND  INCLUDES-ALL MOTIONS NECESSARY TO LIFT CHANGER  TO BULB, POSITION ON BULB, REMOVE BULB FROM  SOCKET, LOWER CHANGER, REMOVE BULB FROM CHANGER,  STOOP, GET NEW BULB FROM CARTON, PLACE OLD BULB  IN CARTON, ARISE, PLACE BULB IN CHANGER, LIFT  BULB AND CHANGER TO SOCKET, SCREW BULB IN  SOCKET, AND LOWER CHANGER FROM BULB  ENDS-WITH BULB CHANGER IN HAND  CONDITIONS-APPLICABLE TO CHANGING OVERHEAD  INCANDESCENT BULBS TO 750 WATTS  1340 CASE 01 CHANGE BULB WITH 9-FOOT CHANGER  1587 02 CHANGE BULB WITH 18-FOOT CHANGER  1826 03 CHANGE BULB WITH 27-FOOT CHANGER</p>
NF	844	MAF	1303	MACMD01	593	<p>MIXTURE (DRY AGGREGATE), DUMP INTO MIXER FROM  HOPPER  STARTS-WITH REACH TO DUMP HANDLE  INCLUDES-ALL MOTIONS NECESSARY TO MOVE DUMP  HANDLE TO OPEN HOPPER, GET VIBRATOR HANDLE,  VIBRATE HOPPER BY HAND TO EMPTY CONTENTS, AND  CLOSE HOPPER  ENDS-WITH RELEASE OF HANDLE  CONDITIONS-APPLICABLE TO DUMPING 3 1/2 CUBIC  FEET OF MIXED DRY AGGREGATE</p>
NF	844	MAF	1362	SOHCA01	462	<p>CHUTE (EXTENSION), ATTACH TO TRANSIT MIXER  STARTS-WITH REACH TO EXTENSION  INCLUDES-ALL MOTIONS NECESSARY TO REMOVE  EXTENSION FROM STORAGE ON TRUCK, TURN, WALK 10  PACES TO REAR OF TRUCK, AND ATTACH EXTENSION  CHUTE TO MIXER  ENDS-WITH RELEASE OF EXTENSION  CONDITIONS-EXTENSION WEIGHS APPROXIMATELY 40  POUNDS</p>
NF	844	MAF	1368/70	MTLCC01	3699	<p>CONCRETE, CHIP WITH CHISEL AND HAMMER, SEVEN  CUBIC INCHES  STARTS-WITH CHISEL AND HAMMER IN HAND  INCLUDES-ALL MOTIONS NECESSARY TO STRIKE  CHISEL WITH HAMMER TO REMOVE SEVEN CUBIC  INCHES OF CONCRETE AND USE CHISEL TO PUSH  AWAY DEBRIS  ENDS-WITH TOOLS IN HAND</p>
NF	844	MAF	1415	MTPHE01	273	<p>HANDLES (GUIDE), EXTEND OR RETRACT, CONCRETE SAW  STARTS-WITH REACH TO HANDLE LOCK KNOB  INCLUDES-ALL MOTIONS NECESSARY TO LOOSEN LOCK  KNOB, PULL HANDLE OUT, TIGHTEN LOCK KNOB,  SIDE STEP TO OTHER HANDLE, LOOSEN LOCK KNOB, PULL  HANDLE OUT, AND TIGHTEN LOCK KNOB  ENDS-WITH RELEASE OF KNOB</p>
NF	844	MAF	1412	MTPHP01	272	<p>HAMMER (PNEUMATIC), POSITION FOR DRILLING AND  REMOVE AFTER DRILLING  STARTS-WITH BEND TO HAMMER  INCLUDES-ALL MOTIONS NECESSARY TO PICK UP  HAMMER AND MOVE TO SPOT FOR DRILLING; AND TO  REMOVE HAMMER AND ASIDE AT FLOOR LEVEL  ENDS-WITH ARISE FROM BEND  CONDITIONS-HAMMER WEIGHS APPROXIMATELY 90  POUNDS</p>
NF	844	MAF	1497	MTPSA01	177	<p>SPEED, ADJUST ON SELF-PROPELLING UNIT OF  CONCRETE SAW  STARTS-WITH RELEASE OF HANDLES OF SAW  INCLUDES-ALL MOTIONS NECESSARY TO TAKE ONE  STEP BACKWARD, STOOP, TURN KNOB THREE  REVOLUTIONS, ARISE, AND WALK ONE PACE FORWARD  ENDS-WITH GRASP HANDLES</p>

# DEFENSE WORK MEASUREMENT STANDARD TIME DATA ELEMENTS

DATA SOURCE	OCCUP- ATION	QUALITY	SOURCE CODE	DWMSTD ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION
NF	844	MAF	1498/99	MTPE01	342	UNIT(SELF-PROPELLING), ENGAGE AND DISENGAGE, CONCRETE SAW STARTS-WITH REACH TO HANDLES INCLUDES-ALL MOTIONS NECESSARY TO HOLD HANDLES AND ACTUATE LEVER WITH FOOT MOTION TO ENGAGE UNIT; AND TO HOLD HANDLES AND ACTUATE LEVER WITH FOOT MOTION TO DISENGAGE UNIT ENDS-WITH HAND ON HANDLES
NAA	845	MAA	JPAADXX	MPAPSXX	VARIABLE	PAINT, SPRAY ON AIRCRAFT SURFACE, PER TEN SQUARE FEET STARTS-WITH SPRAY GUN IN HAND INCLUDES-ALL MOTIONS NECESSARY TO SPRAY TEN SQUARE FEET (FOUR PASSES PER SQUARE FOOT), MOVE HOSE, AND MOVE TO ADJACENT AREA FOR PAINTING ENDS-WITH OPERATOR READY TO PAINT ADJACENT AREA 998 CASE 01 SPRAY TEN SQUARE FEET WITH EPOXY PAINT OR ACRYLIC LACQUER, SPRAY WITH FOUR INCH FAN 593 - 02 SPRAY TEN SQUARE FEET WITH EPOXY OR ACRYLIC PRIMER, SPRAY WITH SIX-INCH FAN
NAA	845	MUA	JPAASRA	SPAAT01	26690	ARROW(RESCUE), INSTALL ON AIRCRAFT STARTS-WITH REACH TO GET MEASURING DEVICE INCLUDES-ALL THE MOTIONS NECESSARY TO MARK POSITION TO PLACE TEMPLATE, TEMPORARY TAPE TEM- PLATE TO AIRCRAFT, MASK OUTLINE TWO TIMES, PAINT YELLOW AND RESCUE BLACK, TWO COATS EACH, REMOVE MASK, USE WORKSTAND ONE TIME TO PAINT AND ONE TIME TO MASK ENDS-WITH DESCENT FROM WORKSTAND, ASIDE PAINT AND TEMPLATES CONDITIONS-ARROW TO 24 INCHES, FOUR STEP ASCENT/DESCENT OF WORKSTAND.
NAA	845	MUA	JPAASNA	SPAII01	80610	INSIGNIA(NATIONAL-STAR), INSTALL ON AIRCRAFT STARTS-WITH REACH TO GET MEASURING DEVICE INCLUDES-ALL THE MOTIONS NECESSARY TO MARK LOCATION OF STAR, GET STAR AND POSITION ON AIRCRAFT, APPLY TEMPORARY TAPE TO HOLD TEMPLATE ONCE FOR EACH COLOR, MASK ONCE FOR EACH COLOR AND REMOVE, PAINT THREE COLORS, TWO COATS EACH, WAIT ONE MINUTE BETWEEN COATS, ATTACH AND RE- MOVE BARRIER PAPER, USE WORK STAND ONCE PER COLOR, ONCE PER MASK AND ONCE PER UNMASK ENDS-WITH DESCENT FROM WORKSTAND, ASIDE PAINT AND TEMPLATE CONDITIONS-PAINT EIGHT SQUARE FEET WITH SPRAY GUN, 30-40 INCH INSIGNIA, FOUR STEP ASCENT/DESCENT OF WORKSTAND.
NF	853	MAF	2278	SOHW01	200	WRAPPING(PAPER), REMOVE FROM 100-POUND BUNDLE OF ASPHALT STARTS-WITH GET BUNDLE OF ASPHALT INCLUDES-ALL MOTIONS NECESSARY TO PLACE BUNDLE OF ASPHALT ON SIDE, GET AXE, CUT PAPER WRAPPING ON ASPHALT, ASIDE AXE, AND TEAR PAPER TO EXPOSE ASPHALT ENDS-WITH RELEASE OF PAPER
NF	853	MAF	997	MTLMS01	776	MIX(HOT BITUMINOUS), SPREAD WITH RAKE, PER SQUARE YARD STARTS-WITH RAKE IN HAND INCLUDES-ALL MOTIONS NECESSARY TO MOVE RAKE BACK AND FORTH THROUGH MIX TO SPREAD ENDS-WITH RAKE IN HAND

# DEFENSE WORK MEASUREMENT STANDARD TIME DATA ELEMENTS

DATA SOURCE	OCCUPATION	QUALITY	SOURCE CODE	OWMSTOP ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION
NF	853	MAF	2279	STLAB01	350	<p>ASPHALT,BREAK INTO PIECES WITH AXE,100-POUND BUNDLE</p> <p>STARTS-WITH REACH TO AXE</p> <p>INCLUDES-ALL MOTIONS NECESSARY TO USE AXE TO BREAK ASPHALT INTO PIECES FOR FEEDING INTO ASPHALT KETTLE</p> <p>ENDS-WITH ASIDE AXE</p>
NF	86X	MAF	2081/82	MACSL01	992	<p>SCAFFOLD(PORTABLE),LOCK AND UNLOCK WHEELS</p> <p>STARTS-WITH TURN TO WHEEL</p> <p>INCLUDES-ALL MOTIONS NECESSARY TO WALK TWO PACES,TURN TO WHEEL,USE FOOT TO ACTUATE LEVER TO LOCK WHEEL;TURN,WALK TWO PACES,STOOP,GET LEVER,PULL TO RELEASE WHEEL,AND ARISE.NOTE-THIS MOTION SEQUENCE IS REPEATED FOR EACH OF FOUR WHEELS.</p> <p>ENDS-WITH WHEELS UNLOCKED</p> <p>CONDITIONS-NO TIME INCLUDED FOR MOVING SCAFFOLD</p>
NF	86X	MAF	1397	MITFM01	922	<p>FRAME(DOOR),MEASURE AND CENTER IN OPENING</p> <p>STARTS-WITH RULE IN HAND</p> <p>INCLUDES-ALL MOTIONS NECESSARY TO MEASURE ONE SIDE OF DOORWAY,TURN TO OTHER SIDE OF DOORWAY, MEASURE,BEND,MEASURE BOTTOM OF DOORWAY,ARISE, TURN TO OTHER SIDE OF DOORWAY,GET HAMMER,TAP FRAME SIX TIMES TO CENTER,BEND,MEASURE DOORWAY,TAP FRAME SIX TIMES TO CENTER,MEASURE, ARISE,MEASURE TOP OF DOORWAY AND ASIDE HAMMER AND RULE</p> <p>ENDS-WITH RELEASE OF TOOLS</p> <p>CONDITIONS-DOES NOT INCLUDE TIME FOR INSTALLING WEDGES TO HOLD DOOR FRAME IN PLACE. APPLICABLE TO INSTALLATION OF STEEL DOOR FRAME IN BRICK OR MASONRY WALL.</p>
NF	86X	MAF	1396	SITFC01	1041	<p>FRAME(DOOR),CHECK FOR VERTICAL ALIGNMENT WITH LEVEL</p> <p>STARTS-WITH REACH TO LEVEL</p> <p>INCLUDES-ALL MOTIONS NECESSARY TO GET LEVEL, POSITION LEVEL TO FRONT OF FRAME,CHECK READING,POSITION LEVEL TO SIDE OF FRAME,CHECK READING,POSITION LEVEL TO REAR OF FRAME,CHECK READING,TURN TO OTHER SIDE OF DOORWAY,POSITION LEVEL TO REAR OF FRAME,CHECK READING,POSITION LEVEL TO SIDE OF FRAME,CHECK READING,POSITION LEVEL TO FRONT OF FRAME,CHECK READING,AND ASIDE LEVEL</p> <p>ENDS-WITH RELEASE OF LEVEL</p> <p>CONDITION-NO TIME INCLUDED FOR CORRECTING ALIGNMENT OF DOOR FRAME.APPLICABLE TO INSTALLATION OF STEEL DOOR FRAME IN BRICK OR MASONRY WALL</p>
NF	86X	MAF	23	NJPB001	112	<p>BLOCK(SANDING),OBTAIN AND ATTACH SANDPAPER</p> <p>STARTS-WITH REACH TO BLOCK</p> <p>INCLUDES-ALL MOTIONS NECESSARY TO GET BLOCK, GET SANDPAPER,AND WRAP PAPER AROUND BLOCK</p> <p>ENDS-WITH BLOCK IN HAND</p> <p>CONDITION-NO TIME INCLUDED FOR TEARING SANDPAPER</p>
NF	86X	MAF	2578	SJPBC01	380	<p>BELT,CHANGE ON HAND HELD SANDING MACHINE</p> <p>STARTS-WITH REACH TO SANDING MACHINE</p> <p>INCLUDES-ALL MOTIONS NECESSARY TO TURN MACHINE ON SIDE,RELEASE BELT,REMOVE BELT FROM ROLLERS, ASIDE BELT,GET NEW BELT,POSITION BELT OVER ROLLERS,MOVE HANDLE TO TIGHTEN BELT,TURN MACHINE UPRIGHT,AND ADJUST BELT TENSION</p> <p>ENDS-WITH RELEASE OF MACHINE</p>

# DEFENSE WORK MEASUREMENT STANDARD TIME DATA ELEMENTS

DATA SOURCE	OCCUP- ATION	QUALITY	SOURCE CODE	DWMSTOP ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION
NF	86X	MAF	34	MMHOR01	886	OBJECT, RAISE AND LOWER WITH MANUALLY OPERATED HOIST, AVERAGE 28-FOOT HEIGHT STARTS-WITH REACH TO HOIST ROPE INCLUDES-ALL MOTIONS NECESSARY TO RAISE OBJECT AN AVERAGE OF 28 FEET (OPERATOR STEPS BACK SEVEN PACES WHILE RAISING), AND TO STEP FORWARD SEVEN PACES TO LOWER OBJECT ENDS-WITH RELEASE OF HOIST ROPE CONDITION-RESISTANCE TO RAISING HOIST IS 45 POUNDS ENW. TIME TO ATTACH OR REMOVE OBJECT NOT INCLUDED.
NF	86X	MAF	1301	MNFAA01	367	ADHESIVE, APPLY TO FLOOR WITH SERRATED TROWEL, PER SQUARE FOOT STARTS-WITH TROWEL IN HAND INCLUDES-ALL MOTIONS NECESSARY TO MOVE TROWEL TO CONTAINER OF ADHESIVE, OBTAIN ADHESIVE ON TROWEL, AND SPREAD ADHESIVE ON FLOOR ENDS-WITH TROWEL IN HAND
NF	86X	MAF	1325	MNFB101	876	BRACE (BOTTOM), INSTALL IN METAL DOOR FRAME STARTS-WITH BRACE, RIVETS, AND EXPANDER IN HAND INCLUDES-ALL MOTIONS NECESSARY TO KNEEL ON BOTH KNEES, ASIDE BRACE, ASIDE RIVET EXPANDER, PLACE FOUR RIVETS THROUGH HOLES IN FRAME, GET BRACE, PLACE OVER RIVETS, GET EXPANDER FOUR TIMES, EXPAND RIVETS, AND ASIDE EXPANDER ENDS-WITH ARISE CONDITION-TWO RIVETS INSTALLED IN EACH END OF BRACE
NF	86X	MAF	1326	SNFB101	380	BRACE (CENTER), INSTALL IN METAL DOOR FRAME STARTS-WITH GET WEDGE INCLUDES-ALL MOTIONS NECESSARY TO GET BRACE, TURN TO DOOR FRAME, POSITION BRACE, POSITION WEDGE TO HOLD BRACE, GET HAMMER, AND TAP WEDGE TO TIGHTEN BRACE ENDS-WITH ASIDE HAMMER
NF	86X	MAF	1398	SNFW101	251	WEDGE, INSTALL TO HOLD DOOR FRAME IN PLACE STARTS-WITH GET TWO WEDGES (ONE IN EACH HAND) INCLUDES-ALL MOTIONS NECESSARY TO MOVE WEDGES TO FRAME, INSERT BY HAND, GET HAMMER, TAP EACH WEDGE TWO TIMES, AND ASIDE HAMMER ENDS-WITH RELEASE OF HAMMER CONDITIONS-DOES NOT INCLUDE THE INSTALLATION OF WEDGES TO LEVEL FRAME
NF	86X	MAF	1399	SNFW102	458	WEDGE, INSTALL TO RAISE AND LEVEL DOOR FRAME STARTS-WITH GET WEDGE INCLUDES-ALL MOTIONS NECESSARY TO KNEEL ON BOTH KNEES, INSERT WEDGE BY HAND, GET HAMMER, STRIKE WEDGE FOUR TIMES, GET SECOND WEDGE, INSERT BY HAND, STRIKE WEDGE FOUR BLUWS WITH HAMMER, AND ASIDE HAMMER ENDS-WITH ARISE
NF	86X	MAF	2946	MOHC001	256	CUTTER (GASKET), OBTAIN FROM CASE AND PUT AWAY STARTS-WITH GET CASE INCLUDES-ALL MOTIONS NECESSARY TO OPEN CASE, REMOVE CUTTER FROM CASE, GET CUTTER, REPLACE IN CASE, AND CLOSE CASE ENDS-WITH ASIDE CASE
NF	86X	MAF	84	MOHFU01	352	FELT (ROOFING), UNROLL 15 FEET STARTS-WITH KNEEL TO ROLL OF FELT INCLUDES-ALL MOTIONS NECESSARY TO ALIGN FELT FOR UNROLLING, START UNROLLING, ARISE, AND WALK AND KICK ROLL OF FELT TO UNROLL A 15-FOOT LENGTH ENDS-WITH FELT UNROLLED CONDITIONS-ROLL OF FELT PREVIOUSLY OBTAINED AND PLACED IN APPROXIMATE POSITION

# DEFENSE WORK MEASUREMENT STANDARD TIME DATA ELEMENTS

DATA SOURCE	OCCUP- ATION	QUALITY	SOURCE CODE	OWMSTOP ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION
NF	86X	MAF	3311	MOHGRO1	245	GASKET, REMOVE FROM CUTTING BOARD AND ASIDE SCRAP STARTS-WITH GET HAMMER INCLUDES-ALL MOTIONS NECESSARY TO REMOVE TWO PINS WITH CLAW HAMMER, ASIDE HAMMER, AND ASIDE GASKET ENDS-WITH ASIDE SCRAP MATERIAL
NF	86X	MAF	1404	SOHAF01	296	FRAME (AND ANCHORS), ADJUST IN OPENING, METAL DOOR FRAME STARTS-WITH REACH TO DOOR FRAME INCLUDES-ALL MOTIONS NECESSARY TO MOVE FRAME SLIGHTLY TO ADJUST, SIDESTEP AND STOOP TO LOWER ANCHOR, POSITION AND CHECK VISUALLY, ARISE, POSITION AND CHECK MIDDLE ANCHOR, AND POSITION AND CHECK TOP ANCHOR ENDS-WITH FRAME AND ANCHORS ADJUSTED
NF	86X	MAF	1400	SOHFA01	1613	FRAME (METAL DOOR), ASSEMBLE STARTS-WITH KNEEL ON BOTH KNEES, HAMMER IN HAND INCLUDES-ALL MOTIONS NECESSARY TO ASIDE HAMMER, GET ONE SIDE FRAME AND MOVE NEAR TOP, GET TOP AND PREPOSITION TO SIDE, GET SIDE FRAME AND POSITION TO INSERT LUGS IN HOLES, GET HAMMER, STRIKE TOP TO SEAT, BEND LUGS OVER WITH HAMMER, ASIDE HAMMER, BEND OVER FRAME, INSPECT WORK, AND ARISE FROM BEND. NOTE-THIS MOTION SEQUENCE IS REPEATED FOR SECOND SIDE FRAME. ENDS-WITH ARISE FROM KNEELING POSITION CONDITIONS-DOES NOT INCLUDE TIME TO GET AND PLACE COMPONENT PARTS
NF	86X	MAF	3435	MTLBA01	411	BLADE (GASKET CUTTER), ADJUST WITH CLAMPING SCREWS STARTS-WITH CUTTER IN HAND INCLUDES-ALL MOTIONS NECESSARY TO GET SCREWDRIVER, LOOSEN TWO CLAMPING SCREWS, ADJUST BLADE HEIGHT, TIGHTEN SCREWS, AND ASIDE CUTTER ENDS-WITH ASIDE SCREWDRIVER
NF	86X	MAF	1688	MTLBU01	538	BOB (PLUMB), USE STARTS-WITH PLUMB BOB IN HAND INCLUDES-ALL MOTIONS NECESSARY TO MOVE PLUMB BOB TO ATTACHING POINT, WRAP CORD TO ATTACH, LOWER PLUMB BOB, POSITION CORD ON MARK, ADJUST CORD LENGTH, STOOP TO PLUMB BOB, STOP PLUMB BOB FROM SWINGING, ARISE, AND REMOVE PLUMB BOB ENDS-WITH PLUMB BOB IN HAND
NF	86X	MAF	3436	MTLCA01	176	CUTTER (GASKET), ADJUST TO SIZE FOR RING GASKET STARTS-WITH REACH TO CUTTER INCLUDES-ALL MOTIONS NECESSARY TO GET CUTTER, LOOSEN THUMB SCREW, POSITION SIZE INDICATOR, AND TIGHTEN THUMB SCREW ENDS-WITH CUTTER IN HAND
NF	86X	MAF	3737	MTLCP01	173	CUTTER (GASKET), POSITION TO BOARD AND REMOVE STARTS-WITH REACH FOR GASKET CUTTER INCLUDES-ALL MOTIONS NECESSARY TO MOVE PIVOT PIN TO CENTER MARK ON GASKET MATERIAL, PRESS PIN INTO MATERIAL, AND POSITION IN CENTER HOLE; AND DISENGAGE PIVOT PIN AND MOVE CUTTER ASIDE ENDS-WITH RELEASE OF CUTTER
NF	86X	MAF	113	MTLGL01	125	GUN (CAULKING), LOAD WITH CARTRIDGE STARTS-WITH GET CAULKING GUN INCLUDES-ALL MOTIONS NECESSARY TO TURN AND MOVE HANDLE BACK, GET CARTRIDGE, POSITION IN GUN, TURN HANDLE, AND ACTUATE TRIGGER TO BRING PLUNGER TO END OF CARTRIDGE ENDS-WITH RELEASE OF TRIGGER CONDITION-APPLICABLE TO HALF CYLINDER, CARTRIDGE TYPE CAULKING GUN

# DEFENSE WORK MEASUREMENT STANDARD TIME DATA ELEMENTS

DATA SOURCE	OCCUP- ATION	QUALITY	SOURCE CODE	DWMSTOP ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION
NF	86X	MAF	340/341	MTPTC01	578	TOOL,CONNECT TO AND DISCONNECT FROM EXTENSION CORD LYING ON FLOOR STARTS-WITH LOOK TO END OF TOOL CORD INCLUDES-ALL MOTIONS NECESSARY TO WALK FOUR PACES,BEND TO END OF TOOL CORD,GET CORD,ARISE, WALK FOUR PACES TO END OF EXTENSION CORD,BEND, GET END OF EXTENSION CORD,PLUG TOOL INTO EXTENSION CORD,PLACE CORD ON FLOOR,AND ARISE; AND LOOK FOR CORD CONNECTION,WALK FOUR PACES, BEND,GET CORD,SEPARATE TOOL CORD FROM EXTENSION,AND ASIDE CORD ENDS ENDS-WITH ARISE FROM BEND
AE	860	MAW	FCHEAP1	MJPBH01	75	BOARD,HOLD FOR SAWING STARTS-WITH REACH TO BOARD INCLUDES-ALL THE MOTIONS NECESSARY TO REACH TO BOARD;MOVE BOARD TO POSITION,PUT KNEE ON BOARD;REMOVE KNEE FROM BOARD AND RELEASE BOARD ENDS-WITH RELEASE BOARD CONOTIONS-NO TIME INCLUDED FOR SAWING
NF	860	MAF	336/337	MJPB101	234	BIT,INSTALL IN AND REMOVE FROM BRACE STARTS-WITH REACH TO BIT;BRACE IN HAND INCLUDES-ALL MOTIONS NECESSARY TO PICK UP BIT, POSITION IN CHUCK,AND TIGHTEN CHUCK;AND LOOSEN CHUCK,AND REMOVE BIT ENDS-WITH ASIDE BRACE AND BIT
AE	860	MAW	FCHEAL1	MJPB102	173	BIT,INSTALL IN AND REMOVE FROM HAND DRILL STARTS-WITH MOVE BIT TO CHUCK INCLUDES-ALL MOTIONS NECESSARY TO POSITION DRILL INTO CHUCK,TIGHTEN CHUCK;LOOSEN AND RELEASE CHUCK ENDS-WITH RELEASE CHUCK
AE	860	MAW	FCHEAB2	MJPB103	102	BIT,INSTALL IN AND REMOVE FROM SPIRAL DRILL STARTS-WITH GET HOLD OF CHUCK INCLUDES-ALL MOTIONS NECESSARY TO OPEN SPRING CHUCK,INSERT DRILL IN CHUCK,LOCK CHUCK AND MOVE DRILL READY FOR USE;MOVE DRILL AND OPEN CHUCK,REMOVE DRILL AND RELEASE CHUCK SPRING ENDS-WITH RELEASE SPRING
NF	860	MAF	117	MOHCA01	111	CARTRIDGE,ASSEMBLE TO STUD STARTS-WITH GET STUD INCLUDES-ALL MOTIONS NECESSARY TO GET CARTRIDGE AND ASSEMBLE TO STUD ENDS-WITH ASIDE ASSEMBLY
AF	860	MAW	FCHEAW1	MOHNG01	65	NAILS,GET FROM BOX STARTS-WITH REACH TO BOX OF NAILS INCLUDES-ALL MOTIONS NECESSARY TO GET A HANDFUL OF NAILS ENDS-WITH MOVE HAND AWAY FROM BOX
NF	860	MAF	328	MOHPL01	704	PARTITION(ASSEMBLED),LIFT FROM FLOOR AND POSITION TO MARKS STARTS-WITH KNEEL TO GET PARTITION INCLUDES-ALL MOTIONS NECESSARY TO GRASP TOP PLATE,ARISE FROM FLOOR WITH PARTITION,LIFT PARTITION TO VERTICAL POSITION,AND POSITION PARTITION TO MARKS AT BOTTOM AND TOP ENDS-WITH HANDS ON PARTITION CONDITION-APPLICABLE TO PARTITION WITH ENW TO 160 POUNDS.TIME VALUE IS TOTAL FOR TWO OPERATORS

DEFENSE WORK MEASUREMENT STANDARD TIME DATA ELEMENTS

DATA SOURCE	OCCUP- ATION	QUALITY	SOURCE CODE	DWMSTOP ELEMENT	THU VALUE	OPERATION/ELEMENT DESCRIPTION
NF	860	MAF	194	MOHPP01	277	PLATE(FOUNDATION),MAKE LEVEL WITH SHIMS STARTS-WITH KNEEL TO PLATE INCLUDES-ALL MOTIONS NECESSARY TO RAISE PLATE, GET TWO SHIMS,AND INSERT SHIMS UNDER PLATE ENDS-WITH ARISE CONDITION-TIME TO GET AND POSITION PLATE NOT INCLUDED
NF	860	MAF	195	MOHPP01	441	PLATE(FOUNDATION),POSITION TO BOLTS SET IN CONCRETE STARTS-WITH PLATE IN HANDS INCLUDES-ALL THE MOTIONS NECESSARY TO BEND TO FOUNDATION AND POSITION PLATE ON BOLTS ENDS-WITH ARISE FROM BEND CONDITIONS-APPLICABLE TO INSTALLATION OF 2" X 4" OR 2" X 6" PLATE 12 FEET LONG WITH BOLT HOLES ON 4-FOOT CENTERS,TIME VALUE IS FOR TWO OPERATORS.
AE	860	MAW	FCHEAG1	MTLBP01	69	BIT(AND BRACE),POSITION FOR DRILLING AND REMOVE STARTS-WITH MOVE DRILL TO MARK INCLUDES-ALL THE MOTIONS NECESSARY TO POSITION DRILL BIT TO MARK,PUSH POINT OF BIT INTO WOOD; DISENGAGE BIT FROM HOLE AND MOVE BRACE FROM WORK AREA ENDS-WITH BRACE IN HANDS,MOVED FROM HOLE CONDITIONS-DOES NOT INCLUDE TIME FOR DRILLING HOLE OR TURNING BRACE TO REMOVE BRACE. APPLICABLE TO BRACE AND BIT OR HAND DRILL
NF	860	MAF	252	MTLBSXX	VARIABLE	BOARD,SAW IN MITER BOX STARTS-WITH BOARD IN HAND INCLUDES-ALL MOTIONS NECESSARY TO GET SAW HANDLE,LIFT SAW,POSITION BOARD IN BOX,POSITION SAW TO BOARD,AND MAKE ONE FORWARD AND ONE RETURN STROKE WITH SAW ENDS-WITH RELEASE OF SAW HANDLE;BOARD IN BOX CASE 01 POSITION BOARD AND MAKE ONE STROKE (FORWARD AND RETURN)WITH SAW 02 EACH ADDITIONAL STROKE WITH SAW
AE	860	MAW	FCHEAZ1	MTLDP01	37	DRILL(SPIRAL),POSITION TO MARK AND REMOVE STARTS-WITH MOVE TOOL TO MARK INCLUDES-ALL THE MOTIONS NECESSARY TO MOVE DRILL,POSITION TO MARK;DISENGAGE DRILL FROM HOLE ENDS-WITH DRILL DISENGAGED FROM HOLE
AE	860	MAW	FCHEAA2	MTLHD01	23	HOLE,DRILL WITH SPIRAL DRILL,PER STROKE STARTS-WITH DRILL IN POSITION FOR USE INCLUDES-ALL MOTIONS NECESSARY TO PUSH SPIRAL DRILL DOWN AND RETURN ENDS-WITH END OF RETURN STROKE
NF	860	MAF	322	MTLLS01	281	LINE,STRIKE WITH CHALK LINE STARTS-WITH LINE HELD NEAR REFERENCE POINTS BY TWO OPERATORS INCLUDES-ALL MOTIONS NECESSARY TO MOVE LINE TO REFERENCE POINTS,HOLD,GET CHALK LINE,RAISE VERTICALLY,AND RELEASE CORD TO STRIKE LINE ENDS-WITH LINE ON SURFACE CONDITION-TIME VALUE IS TOTAL FOR TWO OPERATORS
AE	860	MAW	FCHEAX1	MTLNP01	59	NAIL,POSITION AND START TO DRIVE WITH HAMMER STARTS-WITH MOVE NAIL FROM PALM TO FINGERS INCLUDES-ALL MOTIONS NECESSARY TO GET NAIL FROM PALM,MOVE,POSITION AND HOLD NAIL,MOVE HAMMER AND TAP NAIL TO START(ONE BLOW) ENDS-WITH NAIL STARTED INTO BOARD

# DEFENSE WORK MEASUREMENT STANDARD TIME DATA ELEMENTS

DATA SOURCE	OCCUPATION	QUALITY	SOURCE CODE	DWMSTOP ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION
NF	860	MAF	263	MTLNSXX	VARIABLE	<p>NAIL, START IN BOARD  STARTS-WITH SIMO GET NAILS FROM POCKET AND HAMMER FROM LOOP  INCLUDES-ALL MOTIONS NECESSARY TO POSITION NAIL, AND STRIKE NAIL TWO BLOWS WITH HAMMER TO START IN BOARD  ENDS-WITH HAMMER IN HAND  CONDITION-APPLICABLE TO PRE-NAILING FASCIA STRIPS, ETC.  CASE 01 FIRST NAIL  02 EACH ADDITIONAL NAIL (POSITION AND STRIKE NAIL ONLY)</p>
AE	860	MAW	FCHEAB1	MTLPA01	192	<p>PLANE (HAND), ADJUST  STARTS-WITH PLANE IN HAND  INCLUDES-ALL MOTIONS NECESSARY TO TURN PLANE, CHECK FOR BLADE HEIGHT, ADJUST BLADE HEIGHT BY TURNING ADJUSTING KNOB, MOVE LEVER TO ADJUST LEVEL, TURN PLANE OVER AND MOVE TOWARDS WORK  ENDS-WITH PLANE IN HANDS, READY TO POSITION TO BOARD  CONDITIONS-PLANE WEIGHS APPROXIMATELY 13 POUNDS</p>
AE	860	MAW	FCSDXX	STLDHXX	VARIABLE	<p>HOLE, DRILL WITH SPIRAL DRILL (ONE INCH HOLE)  STARTS-WITH GET DRILL  INCLUDES-ALL MOTIONS NECESSARY TO GET DRILL, GET AND INSTALL DRILL BIT, POSITION DRILL TO MARK AND DRILL HOLE, REMOVE BIT FROM DRILL AND ASIDE DRILL AND BIT; OR MOVE TO ADDITIONAL MARK AND DRILL HOLE  ENDS-WITH ASIDE DRILL OR REMOVE DRILL FROM HOLE  CONDITIONS-APPROXIMATELY FIVE STROKES REQUIRED TO DRILL HOLE  CASE 01 DRILL FIRST HOLE ONE INCH DEEP WITH SPIRAL DRILL  02 DRILL ADDITIONAL HOLE ONE INCH DEEP WITH SPIRAL DRILL</p>
AE	860	MAW	FCHNLXX	STLNRXX	VARIABLE	<p>NAIL, REMOVE WITH HAMMER  STARTS-WITH GET HAMMER  INCLUDES-ALL MOTIONS NECESSARY TO GET HAMMER, POSITION CLAWS TO NAIL, PULL NAIL OUT, REMOVE NAIL FROM HAMMER CLAWS AND ASIDE NAIL AND HAMMER; OR MOVE HAMMER TO NEXT NAIL, REMOVE AND ASIDE NAIL  ENDS-WITH ASIDE HAMMER OR NAILS  CASE 01 REMOVE FIRST NAIL  02 REMOVE ADDITIONAL NAIL</p>
NF	860	MAF	116	MTPG001	99	<p>GUN (POWDER ACTUATED), OPEN AND CLOSE  STARTS-WITH REACH TO GUN  INCLUDES-ALL MOTIONS NECESSARY TO GET GUN, PRESS LEVER DOWN, OPEN GUN STOCK, PRESS LEVER DOWN, CLOSE GUN STOCK, AND MOVE LEVER TO LOCK  ENDS-WITH RELEASE OF LEVER, GUN IN HAND</p>
NF	860	MAF	115	MTPGP01	221	<p>GUN (POWDER ACTUATED), POSITION AND FIRE ONE BOLT OR STUD  STARTS-WITH STUD GUN IN HAND  INCLUDES-ALL MOTIONS NECESSARY TO MOVE GUN TO POSITION, AND FIRE GUN  ENDS-WITH ASIDE GUN</p>
DNF	860	MAF	STPS101	STPS101	494	<p>STUD, INSTALL WITH POWDER ACTUATED GUN  STARTS-WITH REACH FOR STUD  INCLUDES-ALL MOTIONS NECESSARY TO GET STUD, GET CARTRIDGE, ASSEMBLE STUD AND CARTRIDGE, GET GUN, OPEN GUN, INSTALL CARTRIDGE AND STUD ASSEMBLY, CLOSE GUN, POSITION GUN, FIRE STUD, AND ASIDE GUN  ENDS-WITH RELEASE OF GUN</p>



# DEFENSE WORK MEASUREMENT STANDARD TIME DATA ELEMENTS

DATA SOURCE	OCCUP- ATION	QUALITY	SOURCE CODE	DWMSTOP ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION
NF	961	MAF	1436	MNFMA01	82	MORTAR, APPLY TO ONE END AND ONE SIDE OF BRICK STARTS-WITH TROWEL AND BRICK IN HAND INCLUDES-ALL MOTIONS NECESSARY TO APPLY MORTAR TO END OF BRICK, TURN BRICK, AND APPLY MORTAR TO SIDE OF BRICK ENDS-WITH TROWEL AND BRICK IN HAND CONDITIONS-TIME TO OBTAIN MORTAR ON TROWEL NOT INCLUDED
NF	961	MAF	1443	MNFMA02	244	MORTAR, APPLY ON THREE BRICK LENGTHS; FURROW AND CUT JOINT STARTS-WITH TROWEL LOADED WITH MORTAR IN HAND INCLUDES-ALL MOTIONS NECESSARY TO THROW MORTAR ON THREE BRICKS, FURROW JOINT, AND CUT JOINT WITH TROWEL ENDS-WITH TROWEL IN HAND
NF	861	MAF	1506	MNFMA03	28	MORTAR, APPLY TO ONE END OF BRICK STARTS-WITH BRICK AND TROWEL FILLED WITH MORTAR IN HAND INCLUDES-ALL MOTIONS NECESSARY TO MOVE TROWEL TO BRICK AND PRESS MORTAR ON ONE END ENDS-WITH BRICK AND TROWEL IN HAND
NF	861	MAF	1331/32	MOHBOXX VARIABLE	198 229	BRICK(FIRE), DIP IN ADHESIVE STARTS-WITH FIRE BRICK IN HAND INCLUDES-ALL MOTIONS NECESSARY TO SIDESTEP AND STOOP TO ADHESIVE PAN, DIP BRICK IN ADHESIVE, REMOVE, AND SHAKE TO REMOVE EXCESS ENDS-WITH ARISE AND TURN TO INSTALLATION POINT CASE 01 DIP TWO SIDES OF BRICK 02 DIP THREE SIDES OF BRICK
NF	961	MAF	1329	MOHB001	169	BRICK, OBTAIN AND WET, PREPARATORY TO INSTALLATION STARTS-WITH TURN TO PILE OF BRICKS INCLUDES-ALL MOTIONS NECESSARY TO BEND, GET BRICK, MOVE BRICK IN AND OUT OF CONTAINER OF WATER, ARISE, AND TURN TO WALL ENDS-WITH BRICK IN HAND
NF	961	MAF	1337	MOHB001	280	BRICK(FIRE), PLACE AND TAP INTO POSITION STARTS-WITH BRICK AND TROWEL IN HAND INCLUDES-ALL MOTIONS NECESSARY TO MOVE BRICK TO WALL AND POSITION; TAP END, SIDE, AND TOP OF BRICK WITH TROWEL ENDS-WITH BRICK IN PLACE CONDITIONS-APPLICABLE TO REPAIR WORK ONLY
NF	961	MAF	1310	MOHBS01	591	BED(MORTAR SETTING), SMOOTH PRIOR TO LEVELING, PER FOUR SQUARE FEET STARTS-WITH KNEEL ON BOTH KNEES INCLUDES-ALL MOTIONS NECESSARY TO GET BOARD, PLACE TO MORTAR, AND MOVE BOARD SIDEWAYS TO SMOOTH MIX, AND ASIDE BOARD ENDS-WITH ARISE
NF	961	MAF	1338	MOHB001	475	BRICK(JAMB FIRE), TAP INTO POSITION ON OUTSIDE CORNER STARTS-WITH BRICK AND TROWEL IN HAND INCLUDES-ALL MOTIONS NECESSARY TO MOVE BRICK INTO POSITION; TAP END, SIDE, AND TOP OF BRICK WITH TROWEL; CHECK ALIGNMENT, TAP BRICK AS NECESSARY AND RECHECK ALIGNMENT ENDS-WITH TROWEL IN HAND CONDITIONS-APPLICABLE TO REPAIR WORK ONLY

# DEFENSE WORK MEASUREMENT STANDARD TIME DATA ELEMENTS

DATA SOURCE	OCCUP- ATION	QUALITY	SOURCE CODE	DWMSTDP ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION
NF	861	MAF	1512	MOHBT02	673	BRICK, TAP INTO POSITION FOR TIE-IN STARTS-WITH BRICK IN ONE HAND, HAMMER IN OTHER HAND INCLUDES-ALL MOTIONS NECESSARY TO GET BRICK WITH BOTH HANDS (HAMMER PALMED); POSITION BRICK IN MORTAR; TAP END, SIDE, AND TOP OF BRICK TO SEAT; CHECK VISUALLY; TAP END, SIDE, AND TOP OF BRICK SECOND TIME; AND CHECK VISUALLY ENDS-WITH HAMMER IN HAND CONDITIONS-BRICK WEIGHS APPROXIMATELY 15 POUNDS. APPLICABLE TO REPAIR WORK ONLY
NF	861	MAF	1508	SOHB001	429	BAG (CEMENT), OBTAIN AND OPEN STARTS-WITH WALK TWO PACES TO CEMENT STORAGE INCLUDES-ALL MOTIONS TO BEND TO BAG OF CEMENT, PICK UP CEMENT, TURN, WALK TWO PACES TO MIXING LOCATION, SET CEMENT DOWN, ARISE, AND PULL TAB TO OPEN BAG ENDS-WITH ASIDE TAB
NF	861	MAF	1306/07	SOHB001	574	BACKING (PAPER), REMOVE FROM TILE FIELD, 13"x26" STARTS-WITH GET RAG OR SPONGE INCLUDES-ALL MOTIONS NECESSARY TO DIP RAG OR SPONGE IN CONTAINER OF WATER, SQUEEZE TO REMOVE EXCESS, WIPE FIELD OF TILE, ASIDE SPONGE, GET EDGE OF PAPER BACKING, PULL PAPER OFF, SWEEP DEBRIS WITH HAND, AND ASIDE DEBRIS ENDS-WITH RELEASE OF DEBRIS
NF	861	MAF	1408	SOHGPO1	333	GROUT, POUR AND WORK INTO CRACKS OF FLOOR TILE, PER SQUARE FOOT STARTS-WITH REACH FOR PAIL OF GROUT INCLUDES-ALL MOTIONS NECESSARY TO MOVE PAIL INTO POSITION, INVERT, POUR GROUT OVER TILE, SET PAIL ASIDE, GET BRUSH, BRUSH GROUT, AND ASIDE BRUSH ENDS-WITH RELEASE OF BRUSH CONDITIONS-PAIL OF GROUT WEIGHS TO 10 POUNDS
NF	861	MAF	1486	SOHTPO1	417	TILE, POSITION AND LEVEL TO ADJOINING TILE STARTS-WITH REACH TO TILE INCLUDES-ALL MOTIONS NECESSARY TO GET TILE, POSITION, GET BLOCK, PLACE ON TILE, TAP WITH PALM, REMOVE BLOCK, INSPECT VISUALLY, MOVE BLOCK TO TILE, TAP WITH PALM, REMOVE BLOCK, INSPECT, AND ASIDE BLOCK ENDS-WITH RELEASE OF BLOCK CONDITIONS-APPLICABLE TO REPLACEMENT OF TILE
NF	861	MAF	1327	MTLB801	331	BRICK, BREAK WITH TROWEL TO FIT STARTS-WITH TURN TO PILE OF BRICKS INCLUDES-ALL MOTIONS NECESSARY TO BEND, PICK UP BRICK, ARISE, TURN TO WALL, POSITION BRICK TO MEASURE, MARK BRICK WITH TROWEL, MOVE BRICK TO FRONT OF BODY, STRIKE WITH TROWEL TO BREAK, AND MOVE BRICK TO WALL TO CHECK FIT ENDS-WITH BRICK IN HAND
NF	861	MAF	1465	MTLB001	660	BAG, CUT, CEMENT OR SIMILAR USING TROWEL STARTS-WITH BEND TO BAG OF CEMENT INCLUDES-ALL MOTIONS NECESSARY TO PICK UP BAG OF CEMENT, LIFT TO POSITION, GET TROWEL, STRIKE BAG TO CUT IN HALF, LIFT BAG TO FOLD, AND CUT REMAINDER OF BAG WITH TROWEL TO SEPARATE HALVES ENDS-WITH ASIDE TROWEL AND ARISE
NF	861	MAF	1309	MTLBS01	357	BED (MORTAR SETTING), SCREED, PER TWO SQUARE FEET STARTS-WITH SCREED IN HAND INCLUDES-ALL MOTIONS NECESSARY TO SCREED TWO SQUARE FEET OF MORTAR SETTING BED ENDS-WITH SCREED IN HAND

DEFENSE WORK MEASUREMENT STANDARD TIME DATA ELEMENTS

DATA SOURCE	OCCUP- ATION	QUALITY	SOURCE CODE	DWMSTOP ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION
NF	861	MAF	1510	MTLCB01	190	BRICK,CHIP OUT WITH CHISEL AND HAMMER,PER CUBIC INCH STARTS-WITH CHISEL AND HAMMER IN HAND INCLUDES-ALL MOTIONS NECESSARY TO MOVE CHISEL TO BRICK,MOVE HAMMER TO CHISEL,AND CHIP OUT ONE CUBIC INCH OF BRICK(SIX HAMMER BLOWS) ENDS-WITH CHISEL AND HAMMER IN HAND CONDITIONS-NO TIME ALLOWED FOR REPOSITIONING CHISEL
NF	861	MAF	1426	MTLJC01	246	JOINT(MORTAR),CUT OFF,BOTTOM AND ONE END,THREE BRICKS,WITH TROWEL STARTS-WITH TROWEL IN HAND INCLUDES-ALL MOTIONS NECESSARY TO CUT OFF ONE HORIZONTAL JOINT(THREE BRICKS LONG),SHAKE MORTAR FROM TROWEL TO MORTAR PAN,CUT OFF THREE VERTICAL JOINTS(ONE BRICK HIGH),AND SHAKE MORTAR INTO PAN ENDS-WITH TROWEL IN HAND
NF	861	MAF	1427	MTLJC02	117	JOINT(MORTAR),CUT OFF,BOTTOM AND ONE END,ONE BRICK,WITH TROWEL STARTS-WITH TROWEL IN HAND INCLUDES-ALL MOTIONS NECESSARY TO CUT OFF ONE HORIZONTAL AND ONE VERTICAL JOINT(ONE BRICK ONLY) AND SHAKE MORTAR FROM TROWEL INTO MORTAR PAN ENDS-WITH TROWEL IN HAND
NF	861	MAF	1429	MTLJP01	208	JOINT(MORTAR),POINT UP HORIZONTAL AND VERTICAL 8"x16" BLOCK STARTS-WITH POINTING TOOL IN HAND INCLUDES-ALL MOTIONS NECESSARY TO POINT UP ONE VERTICAL AND ONE HORIZONTAL JOINT OF ONE BLOCK ENDS-WITH TOOL IN HAND
NF	861	MAF	1429	MTLJS01	195	JOINT(MORTAR),STRIKE,VERTICAL AND HORIZONTAL, ONE BLOCK,WITH TROWEL STARTS-WITH TROWEL IN HAND INCLUDES-ALL MOTIONS NECESSARY TO MOVE TROWEL TO VERTICAL JOINT,STRIKE JOINT,SHAKE MORTAR FROM TROWEL,STRIKE HORIZONTAL JOINT,AND SHAKE MORTAR FROM TROWEL ENDS-WITH TROWEL IN HAND
NF	861	MAF	1492	MTLTF01	132	TROWEL,FILL WITH MORTAR STARTS-WITH TROWEL IN HAND INCLUDES-ALL MOTIONS NECESSARY TO TURN AND BEND TO MORTAR PAN,DIP TROWEL IN MORTAR,LIFT LOADED TROWEL,ARISE,AND TURN TO WORK ENDS-WITH TROWEL FILLED WITH MORTAR IN HAND
NF	862	MAF	3320	SEMP01	252	TOOL(REAMING),POSITION AND RETURN,TOLEDO 999 PIPE MACHINE OR SIMILAR STARTS-WITH REACH TO REAMER INCLUDES-ALL MOTIONS NECESSARY TO SWING REAMER DOWN TO CUTTING POSITION,MOVE CARRIAGE TO BRING REAMER TO PIPE END,MOVE REAMER INTO PIPE,MOVE CARRIAGE AWAY,AND RAISE REAMER ENDS-WITH RELEASE OF REAMER CONDITIONS-DOES NOT INCLUDE TIME FOR REAMING
NF	862	MAF	602	MNFSIXX	VARIABLE	STAPLE,INSTALL IN PIPE COVER STARTS-WITH REACH TO PIPE COVER,STAPLER IN HAND INCLUDES-ALL MOTIONS NECESSARY TO POSITION COVER AND INSTALL STAPLE ENDS-WITH STAPLE INSTALLED,STAPLER IN HAND CASE 01 FIRST STAPLE 02 EACH ADDITIONAL STAPLE(POSITIONING OF COVER NOT REQUIRED)

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43

# DEFENSE WORK MEASUREMENT STANDARD TIME DATA ELEMENTS

DATA SOURCE	OCCUP- ATION	QUALITY	SOURCE CODE	DWMSTDP ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION
NF	862	MAF	3733	MOHCGXX	VARIABLE	COVER(PIPE),GET AND POSITION ON PIPE,LENGTH OF COVER-THREE FEET STARTS-WITH GET COVER INCLUDES-ALL MOTIONS NECESSARY TO OPEN COVER, SLIDE OVER PIPE,AND POSITION ENDS-WITH RELEASE OF COVER 119 CASE 01 SMALL PIPE,TO TWO INCHES DIAMETER 188 02 MEDIUM PIPE,TWO-SIX INCHES DIAMETER 314 03 LARGE PIPE,GREATER THAN SIX INCHES DIAMETER
NF	862	MAF	556	MOHCO01	288	CLOTH,OBTAIN FROM ROLL STARTS-WITH REACH TO CLOTH ON ROLL INCLUDES-ALL MOTIONS NECESSARY TO UNROLL TO 16 INCHES OF CLOTH,GET KNIFE,SLIT CLOTH,ASIDE KNIFE,AND TEAR CLOTH TO SEPARATE FROM ROLL ENDS-WITH RELEASE OF CLOTH CONDITIONS-CLOTH IS 36 INCHES WIDE,APPLICABLE TO OBTAINING MUSLIN OR SIMILAR FOR WRAPPING PIPES AND FITTINGS
NF	862	MAF	557	MOHCS01	134	CLOTH,SMOOTH AFTER WRAPPING AROUND PIPE FITTING STARTS-WITH REACH TO CLOTH INCLUDES-ALL MOTIONS NECESSARY TO STRAIGHTEN AND SMOOTH CLOTH WRAPPING WITH HANDS ENDS-WITH RELEASE OF CLOTH CONDITIONS-APPLICABLE TO SMOOTHING CLOTH WRAPPED AROUND FITTING FOR INSULATION
NF	862	MAF	654	MOHFW01	310	FITTING,WRAP WITH WIRE(CHICKEN WIRE OR SIMILAR) STARTS-WITH REACH TO WIRE INCLUDES-ALL MOTIONS NECESSARY TO WRAP WIRE AROUND PIPE FITTING ENDS-WITH RELEASE OF WIRE
NF	862	MAF	3738	MOHGI01	97	GASKET,INSERT BETWEEN FLANGE JOINTS TO TWO-INCH INSIDE DIAMETER STARTS-WITH REACH TO GASKET INCLUDES-ALL MOTIONS NECESSARY TO GET GASKET, POSITION BETWEEN FLANGES,ALIGN GASKET TO HOLE, AND PRESS GASKET INTO PLACE ENDS-WITH RELEASE OF GASKET
NF	862	MAF	3309	MOHJA01	332	JOINT(FLANGE),ALIGN STARTS-WITH REACH TO FLANGE INCLUDES-ALL MOTIONS NECESSARY TO BRING FLANGE TOGETHER,ALIGN APPROXIMATELY,GET PIN, INSERT IN BOLT HOLE,ALIGN FLANGES,AND REMOVE PIN ENDS-WITH ASIDE PIN CONDITIONS-TIME FOR INSTALLATION OF BOLTS NOT INCLUDED,APPLICABLE TO PIPE TWO-SIX INCHES INSIDE DIAMETER.
NF	862	MAF	3310	MOHJA02	171	JOINT(FLANGE),ALIGN WITH PIN STARTS-WITH GET PIN INCLUDES-ALL MOTIONS NECESSARY TO INSERT PIN THROUGH BOLT HOLES IN TWO FLANGES TO BRING FLANGES INTO ALIGNMENT ENDS-WITH ASIDE PIN CONDITIONS-TIME FOR INSTALLATION OF BOLTS NOT INCLUDED
NF	862	MAF	542/3/4	MOHL001	823	LAMPWICK,OBTAIN AND WRAP ON THREADS OF PIPE STARTS-WITH REACH TO ROLL OF LAMPWICK INCLUDES-ALL MOTIONS NECESSARY TO GET ROLL OF LAMPWICK,UNROLL SIX-FOOT SECTION,BREAK SECTION FROM ROLL,ASIDE ROLL,SEPARATE STRANDS OF LAMPWICK,AND WRAP STRAND ON THREADS OF PIPE ENDS-WITH RELEASE OF LAMPWICK

# DEFENSE WORK MEASUREMENT STANDARD TIME DATA ELEMENTS

DATA SOURCE	OCCUP- ATION	QUALITY	SOURCE CODE	DWMSTD ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION
NF	862	MAF	1682	MOHPP01	264	PIPE, POSITION IN THREADING MACHINE AND REMOVE, TO FOUR-FOOT LENGTH STARTS-WITH PIPE IN HAND INCLUDES-ALL MOTIONS NECESSARY TO MOVE END OF PIPE TO CHUCK, POSITION, MOVE PIPE INTO CHUCK, TURN, STEP TO OTHER SIDE OF CHUCK, PULL PIPE END THROUGH CHUCK, AND POSITION PIPE IN CHUCK; AND SIDESTEP TO END OF MACHINE, GET PIPE, AND SLIDE FROM CHUCK ENDS-WITH PIPE IN HAND CONDITIONS-APPLICABLE TO 1/4"-2" INSIDE DIAMETER PIPE. MACHINE TIME NOT INCLUDED.
NF	862	MAF	1684	MOHPP02	442	PIPE, POSITION IN THREADING MACHINE AND REMOVE, 4-20 FEET IN LENGTH STARTS-WITH PIPE IN HAND INCLUDES-ALL MOTIONS NECESSARY TO MOVE END OF PIPE TO V-ROLLER, POSITION ON ROLLER, SIDESTEP TO CHUCK, MOVE END OF PIPE TO CHUCK, TURN, WALK TO OTHER SIDE OF CHUCK, AND PULL END OF PIPE THROUGH CHUCK; AND TURN, WALK TO REAR OF MACHINE, GET PIPE, AND REMOVE FROM CHUCK ENDS-WITH PIPE IN HAND CONDITIONS APPLICABLE TO 1/4"-2" INSIDE DIAMETER PIPE. MACHINE TIME NOT INCLUDED
NF	862	MAF	3313	MOHPP03	359	PIPE, POSITION IN THREADING MACHINE CHUCK AND REMOVE, TO FOUR FOOT LENGTH STARTS-WITH PIPE IN HAND INCLUDES-ALL MOTIONS NECESSARY TO MOVE PIPE TO CHUCK WHILE WALKING TWO PACES, POSITION END OF PIPE TO CHUCK, AND PUSH PIPE THROUGH CHUCK TO CARRIAGE CYLINDER; AND TURN AND WALK TO END OF MACHINE, AND SLIDE PIPE FROM MACHINE ENDS-WITH PIPE IN HANDS CONDITIONS-APPLICABLE TO PIPE FOUR TO SIX INCHES DIAMETER LOADED IN HEAVY DUTY PIPE MACHINE. NO TIME INCLUDED FOR POSITIONING OR SECURING PIPE IN MACHINE.
NF	862	MAF	599/600	MOHSA01	1757	SNAKE, ATTACH TO AND REMOVE FROM PIPE, PREPATORY TO LEAD POUR STARTS-WITH REACH TO SNAKE INCLUDES-ALL MOTIONS NECESSARY TO GET SNAKE AND WRAP AROUND PIPE, SECURE SNAKE WITH CLAMP, GET YARN AND POSITION TO PIPE AND CLAMP, PUSH SNAKE AGAINST PIPE, GET HAMMER, POUND SNAKE TO ALIGN SNAKE, PLACE HAMMER ASIDE, INSPECT JOINT, REMOVE CLAMP, REMOVE SNAKE, ASIDE SNAKE, AND INSPECT JOINT ENDS-WITH COMPLETION OF INSPECTION
NF	862	MAF	601	MOHSP01	331	STAND(PIPE), POSITION UNDER PIPE STARTS-WITH REACH TO PIPE BY FIRST OPERATOR INCLUDES-ALL MOTIONS NECESSARY FOR FIRST OPERATOR TO LIFT PIPE WHILE SECOND OPERATOR REACHES TO PIPE STAND, MOVES STAND TWO PACES AND POSITION UNDER PIPE, AND FIRST OPERATOR TO LOWER PIPE TO STAND ENDS-WITH PIPE POSITIONED ON STAND CONDITION-TIME VALUE IS TOTAL FOR TWO OPERATORS
NF	862	MAF	626	MOHT01	167	TUBING, BEND TO MATCH FITTING STARTS-WITH REACH TO TUBE INCLUDES-ALL MOTIONS NECESSARY TO APPLY PRESSURE, BEND TUBING TO ALIGN TO FITTING, AND VISUALLY CHECK RESULTS ENDS-WITH TUBING ALIGNED TO FITTING CONDITIONS-APPLICABLE TO COPPER TUBING 1/4-3 INCHES DIAMETER

# DEFENSE WORK MEASUREMENT STANDARD TIME DATA ELEMENTS

DATA SOURCE	OCCUP- ATION	QUALITY	SOURCE CODE	DWMSTDP ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION
NF	862	MAF	636	MOHTU01	430	TUBING, UNROLL FROM COIL STARTS-WITH REACH TO ROLL OF TUBING INCLUDES-ALL MOTIONS NECESSARY TO UNROLL AND STRAIGHTEN THREE FEET OF TUBING FROM ROLL ENDS-WITH TUBING UNROLLED CONDITIONS-APPLICABLE TO COPPER TUBING 1/4-3 INCHES IN DIAMETER
NF	862	MAF	3440	MSUDP01	253	DIE(THREADING), POSITION TO PIPE AND RETRACT, TJLEDO MODEL 999 OR SIMILAR PIPE MACHINE STARTS-WITH REACH TO CARRIAGE INCLUDES-ALL MOTIONS NECESSARY TO MOVE CARRIAGE 24 INCHES TO END OF PIPE AND POSITION PIPE TO DIE FOR THREADING; AND OPEN DIE AND RETRACT CARRIAGE ENDS-WITH RELEASE OF CARRIAGE
NF	862	MAF	3432	MSUSA01	235	SPEED, ADJUST ON HEAVY DUTY PIPE MACHINE, THREE LEVERS STARTS-WITH TURN FROM MACHINE INCLUDES-ALL MOTIONS NECESSARY TO WALK ONE PACE TO SPEED LEVERS, CHECK SPEED CHART, MOVE EACH OF THREE LEVERS TO ADJUST SPEED, AND TURN FROM LEVERS ENDS-WITH WALK ONE PACE TO MACHINE
NF	862	MAF	3433	MSUSC01	133	SIZE(DIE), CHANGE ON HEAVY DUTY PIPE MACHINE STARTS-WITH LOOK TO MARK ON MACHINE INCLUDES-ALL MOTIONS NECESSARY TO GET LEVER AND POSITION TO CORRECT SETTING ENDS-WITH RELEASE LEVER
NF	862	MAF	3434	MSUWT01	418	WHEEL, TIGHTEN OR LOOSEN TO ADJUST REAR GUIDE CLAMPS, HEAVY DUTY PIPE MACHINE STARTS-WITH WALK FOUR PACES TO REAR OF MACHINE INCLUDES-ALL MOTIONS NECESSARY TO SIDESTEP TO WHEEL, TURN WHEEL TO TIGHTEN OR LOOSEN, AND SIDESTEP FROM WHEEL ENDS-WITH WALK FOUR PACES TO OPERATING POSITION CONDITIONS-RESISTANCE TO TURNING WHEEL UP TO 60 POUNDS ENW
NF	862	MAF	2570/71	SSUDI01	500	DIE(THREADING), INSTALL AND REMOVE, PIPE THREADING MACHINE STARTS-WITH BEND TO STORAGE SHELF UNDER MACHINE INCLUDES-ALL MOTIONS NECESSARY TO IDENTIFY THE DESIRED DIE, REMOVE FROM SLOTTED SHELF, ARISE, POSITION DIE ON SPUDS, AND CLOSE LEVER TO SECURE DIE; AND OPEN LEVER, REMOVE DIE, BEND, AND PLACE DIE IN SLOT ON SHELF ENDS-WITH ARISE FROM BEND
NF	862	MAF	576	MTFPP01	194	PIPE, POSITION AND ENGAGE THREADS(PIPE SUSPENDED ON HOIST) STARTS-WITH REACH TO END OF PIPE INCLUDES-ALL MOTIONS NECESSARY TO MOVE END OF PIPE TO FITTING, POSITION, GET PIPE WITH BOTH HANDS, AND TURN PIPE TO ENGAGE THREADS ENDS-WITH RELEASE OF PIPE
NF	862	MAF	634	MTFTA01	270	TUBING, ASSEMBLE TO THREADED FITTINGS(BOTH ENDS OF TUBING) STARTS-WITH REACH TO TUBE INCLUDES-ALL MOTIONS NECESSARY TO PICK UP TUBE, MOVE ONE END TO FITTING, HOLD, GET NUT AND ENGAGE ON THREADS, GET OTHER END OF TUBE, MOVE TO FITTING, AND ENGAGE NUT ON THREADS ENDS-WITH RELEASE OF TUBE CONDITIONS-DOES NOT INCLUDE TIME TO TURN NUT DOWN OR TO TIGHTEN NUT

# DEFENSE WORK MEASUREMENT STANDARD TIME DATA ELEMENTS

DATA SOURCE	OCCUPATION	QUALITY	SOURCE CODE	DWMSTOP ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION
NF	862	MAF	611	MTLCCXX	VARIABLE	COVER(PIPE), CUT WITH HACK SAW STARTS-WITH ONE HAND ON PIPE COVER, SAW IN OTHER HAND POSITIONED FOR CUTTING INCLUDES-ALL MOTIONS NECESSARY TO SAW THROUGH PIPE COVER AND ASIDE SCRAP ENDS-WITH RELEASE OF SCRAP 991 CASE 01 PIPE COVER FOR PIPE DIAMETER TWO INCHES OR LESS 1235 02 PIPE COVER FOR PIPE DIAMETER TWO-SIX INCHES 1540 03 PIPE COVER FOR PIPE DIAMETER GREATER THAN SIX INCHES
NF	862	MAF	3268	MTL0801	617	DIE, BACK OFF THREADING TOOL, HAND-HELD PIPE DIE STARTS-WITH MOVE HANDLE FORWARD INCLUDES-ALL THE MOTIONS NECESSARY TO MOVE HANDLE FORWARD 10 TIMES, SET RATCHET 10 TIMES AND MOVE HANDLE BACK 10 TIMES ENDS-WITH MOVE HANDLE BACK CONDITIONS-RATCHET IN REVERSE-MATERIAL IN VISE AND HANDLE MOVED 36 INCHES EACH MOVE
AF	862	MAA	104	MTL0P01	116	DIE, POSITION TO PIPE AND START FIRST THREAD, HAND-HELD PIPE DIE STARTS-WITH CUTTING TOOL IN HAND AND PIPE IN VISE INCLUDES-ALL THE MOTIONS NECESSARY TO POSITION TOOL TO PIPE, SEAT TOOL ON PIPE, APPLY PRESSURE AND MOVE HANDLE FORWARD, SET RATCHET, MOVE HANDLE WITH 30 POUNDS RESISTANCE ENDS-WITH MOVE HANDLE
NF	862	MAF	536/537	MTLJTXX	VARIABLE	JOINT(FLANGE), TIGHTEN OR LOOSEN, PRELIMINARY STARTS-WITH POSITION WRENCH ON FLANGE INCLUDES-ALL MOTIONS NECESSARY TO POSITION PINS IN HOLES IN FLANGE, TIGHTEN OR LOOSEN, MOVE WRENCH FROM HOLES, AND MOVE WRENCH BACK FOR NEXT TURN ENDS-WITH WRENCH IN HAND 673 CASE 01 PIN WRENCH WITH DOUBLE PIN (APPROXIMATELY 4 REVOLUTIONS) 998 02 FACE TYPE SPANNER WRENCH (APPROXIMATELY 3 REVOLUTIONS)
NF	862	MAF	571	MTLPC01	3830	PIPE, CUT WITH PIPE CUTTER STARTS-WITH CUTTER POSITIONED ON PIPE INCLUDES-ALL MOTIONS NECESSARY TO MAKE 18 REVOLUTIONS WITH CUTTER TO CUT PIPE ENDS-WITH PIPE SEPARATED
NF	862	MAF	627	MTLTBXX	VARIABLE	TUBING, BEND WITH TUBING BENDER STARTS-WITH GET BENDING DEVICE INCLUDES-ALL MOTIONS NECESSARY TO POSITION DEVICE ON TUBING, MAKE BEND TO 90 DEGREES, AND REMOVE DEVICE ENDS-WITH ASIDE BENDING DEVICE CONDITIONS-APPLICABLE TO COPPER TUBING 1/4-3 INCHES OUTSIDE DIAMETER 405 CASE 01 BEND TUBE WITH BENDING SPRING 498 02 BEND TUBE WITH TUBE BENDER
NF	862	MAF	620/621	MTLYCXX	VARIABLE	TUBING, CUT OFF WITH HAND CUTTER STARTS-WITH REACH TO TUBING CUTTER INCLUDES-ALL MOTIONS NECESSARY TO POSITION CUTTER ON TUBE, ADJUST TO TUBE, CUT TUBE, BREAK OFF END OF TUBE, AND REMOVE CUTTER ENDS-WITH ASIDE CUTTER 723 CASE 01 CUT TUBING TO 3/4 INCH DIAMETER 1528 02 CUT TUBING 7/8 - 3 INCHES DIAMETER

DEFENSE WORK MEASUREMENT STANDARD TIME DATA ELEMENTS

DATA SOURCE	OCCUP- ATION	QUALITY	SOURCE CODE	DWMSTOP ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION
NF	862	MAF	632	STLTF01	1284	TUBING, FLARE END STARTS-WITH GET FLARING BLOCK INCLUDES-ALL MOTIONS NECESSARY TO OPEN FLARING BLOCK, GET TUBE, PLACE FLARING BLOCK ON TUBE, TIGHTEN BLOCK (TWO NUTS), ATTACH FLARING TOOL, FLARE END OF TUBE, REMOVE FLARING TOOL, REMOVE BLOCK, AND ASIDE TUBE ENDS-WITH ASIDE FLARING BLOCK CONDITIONS-APPLICABLE TO COPPER TUBING 1/4-3 INCHES OUTSIDE DIAMETER
NF	862	MAF	633	STLTRO1	450	TUBING, REAM END WITH HAND REAMER STARTS-WITH GET REAMER INCLUDES-ALL MOTIONS NECESSARY TO POSITION REAMER TO TUBE, REAM TUBE, AND REMOVE REAMER ENDS-WITH ASIDE REAMER CONDITIONS-APPLICABLE TO COPPER TUBING 1/4-3 INCHES OUTSIDE DIAMETER
NF	862	MUF	878	MVSVO01	266	WISE (PIPE), OPEN OR CLOSE AND TIGHTEN STARTS-WITH REACH TO WISE INCLUDES-ALL MOTIONS NECESSARY TO PULL WISE HANDLE TO LOOSEN, SPIN HANDLE TO RELEASE WISE ROD, OPEN WISE ROD, AND OPEN UPPER JAW ENDS-WITH RELEASE OF UPPER JAW CONDITION-REVERSE MOTION PATTERN, SAME TIME, REQUIRED TO CLOSE WISE, NO TIME ALLOWED FOR MOVING OR POSITIONING PIPE
NF	863	MAF	3728	MOHSP01	208	SHINGLE (ASBESTOS), POSITION TO WALL STARTS-WITH SHINGLE IN HAND INCLUDES-ALL MOTIONS NECESSARY TO GRASP SHINGLE WITH BOTH HANDS, MOVE SHINGLE TO WALL, ALIGN, PUSH NEW SHINGLE UNDER SHINGLE ON WALL, GET HAMMER FROM HAMMER LOOP, AND TAP SHINGLE IN PLACE ENDS-WITH HAMMER IN HAND CONDITION-APPLICABLE TO THE REPLACEMENT OF BROKEN SHINGLES
NF	863	MAF	247	MOHSRO1	485	SHINGLE (BROKEN), REMOVE FROM WALL, ASBESTOS SHINGLE STARTS-WITH HAMMER IN HAND INCLUDES-ALL MOTIONS NECESSARY TO USE HAMMER TO BREAK SHINGLE FOR REMOVAL AND REMOVE PIECES OF SHINGLE ENDS-WITH ASIDE PIECES OF SHINGLE
NF	863	MAF	243	MTLSCO1	146	SHINGLE, CUT WITH SHINGLE CUTTER, ASBESTOS SHINGLE STARTS-WITH REACH TO CUTTER HANDLE INCLUDES-ALL MOTIONS NECESSARY TO RAISE HANDLE TO OPEN CUTTER, ALIGN SHINGLE TO CUTTER, AND CUT SHINGLE ENDS-WITH COMPLETION OF CUT CONDITION-DOES NOT INCLUDE TIME TO GET AND ASIDE SHINGLE
NF	863	MAF	246	MTLSPXX VARIABLE		SHINGLE, PUNCH HOLE WITH MANUAL PUNCH, ASBESTOS SHINGLE STARTS-WITH SHINGLE IN ONE HAND AND OTHER HAND ON PUNCH HANDLE INCLUDES-ALL MOTIONS NECESSARY TO RAISE HANDLE, POSITION SHINGLE TO PUNCH, LOWER HANDLE TO PUNCH HOLE, RAISE HANDLE, REMOVE SHINGLE, AND LOWER HANDLE ENDS-WITH SHINGLE IN HAND CASE 01 FIRST HOLE 02 EACH ADDITIONAL HOLE

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DEFENSE WORK MEASUREMENT STANDARD TIME DATA ELEMENTS

DATA SOURCE	OCCUPATION	QUALITY	SOURCE CODE	DWMSTOP ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION
NF	864	MAF	180	SJPSC01	2233	SANDPAPER, CHANGE ON DRUM SANDER STARTS-WITH GET WRENCH INCLUDES-ALL MOTIONS NECESSARY TO KNEEL, UNLOCK PAPER ON DRUM, REMOVE AND ASIDE USED PAPER, PICK UP NEW PAPER, PLACE ONE END OF PAPER IN DRUM SLOT, FOLD PAPER AND ROTATE DRUM, INSERT SECOND END OF PAPER IN SLOT, CREASE PAPER WITH WRENCH, INSERT FILLER, LOCK PAPER ON DRUM WITH WRENCH, AND ARISE ENDS-WITH ASIDE WRENCH CONDITIONS-TIME TO OBTAIN SANDPAPER NOT INCLUDED
NF	864	MAF	86	MOHFM01	162	FELT, MOVE ASIDE FOR ADHESIVE APPLICATION STARTS-WITH WALK THREE PACES TO END OF FELT INCLUDES-ALL MOTIONS NECESSARY TO STOOP, PICK UP END OF FELT, ARISE, AND WALK BACKWARD TO MOVE FELT ASIDE ENDS-WITH RELEASE OF FELT CONDITIONS-APPLICABLE TO INSTALLATION OF FELT ON WOOD FLOOR
NF	864	MAF	87	MOHFM02	263	FELT, MOVE INTO POSITION AFTER ADHESIVE APPLICATION STARTS-WITH STOOP TO PICK UP FELT INCLUDES-ALL MOTIONS NECESSARY TO PICK UP END OF FELT STRIP, WALK THREE PACES TO BRING FELT OVER ADHESIVE, KNEEL, POSITION FELT, AND PRESS FELT INTO PLACE ENDS-WITH ARISE FROM KNEELING POSITION CONDITION-TIME TO APPLY ADHESIVE NOT INCLUDED. APPLICABLE TO INSTALLATION OF FELT STRIP ON WOOD FLOOR
NF	864	MAF	81	MTPSL01	49	SANDER (DRUM), LOWER TO OR RAISE FROM FLOOR STARTS-WITH HANDS ON MACHINE HANDLE INCLUDES-ALL MOTIONS NECESSARY TO RELEASE MACHINE HANDLE, GET RELEASE LEVER, MOVE LEVER TO RELEASE DRUM, LOWER DRUM, RELEASE LEVER, AND REACH TO MACHINE HANDLE ENDS-WITH HANDS ON MACHINE HANDLE
NF	865	MAF	198	MNFPI01	265	POINT (GLAZIER'S), INSTALL, PER POINT STARTS-WITH REACH TO GLAZIER'S POINT INCLUDES-ALL MOTIONS NECESSARY TO GET POINT, POSITION POINT, GET CHISEL, PRESS POINT IN, ASIDE CHISEL, GET HAMMER, AND TAP POINT ENDS-WITH ASIDE HAMMER
NF	865	MAF	105	MOHGP01	98	GLASS, PLACE IN AND REMOVE FROM WINDOW FOR TRIAL INSTALLATION STARTS-WITH GLASS IN HAND INCLUDES-ALL MOTIONS NECESSARY TO HOLD GLASS BY SIDES, POSITION BOTTOM CORNERS IN SASH, GRASP PANE NEAR TOP, MOVE PANE INTO SASH, AND REMOVE PANE FROM SASH ENDS-WITH PANE IN HAND CONDITION-APPLICABLE TO INSTALLATION OF WINDOW PANES 24X24-36X36 INCHES
NF	865	MAF	102	MOHGP02	138	GLASS, PLACE IN WINDOW FOR FINAL INSTALLATION STARTS-WITH GLASS IN HAND INCLUDES-ALL MOTIONS NECESSARY TO HOLD GLASS PANE BY SIDES, PLACE BOTTOM CORNERS IN SASH, GRASP PANE NEAR TOP, MOVE PANE INTO SASH, AND PRESS PANE IN PUTTY ENDS-WITH RELEASE OF GLASS CONDITION-APPLICABLE TO INSTALLATION OF WINDOW PANES 24X24-36X36 INCHES

# DEFENSE WORK MEASUREMENT STANDARD TIME DATA ELEMENTS

DATA SOURCE	OCCUP- ATION	QUALITY	SOURCE CODE	DWMSTDP ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION
NF	866	MAF	3383	MNFFN01	68	FELT(ROOFING),NAIL WITH ROOFING NAILS,PER NAIL STARTS=WITH NAIL AND HAMMER IN HAND INCLUDES=ALL MOTIONS NECESSARY TO POSITION NAIL AND DRIVE WITH THREE HAMMER BLOWS ENDS=WITH HAMMER IN HAND
DNF	866	MAF	MOHAA01	MOHAA01	439	ASPHALT,APPLY FLOOD COAT FROM POUR CAN STARTS=WITH BEND TO FILLED POUR CAN INCLUDES=ALL MOTIONS NECESSARY TO PICK UP POUR CAN FILLED WITH ASPHALT,GET CAN WITH OTHER HAND,TILT CAN,AND POUR WITH SWEEPING MOTIONS WHILE SIDESTEPPING OVER AREA TO BE COATED ENDS=WITH ARISE FROM BEND,EMPTY CAN IN HAND CONDITIONS=FILLED CAN WEIGHS APPROXIMATELY 40 POUNDS.TIME TO WALK TO AND FROM ASPHALT CART NOT INCLUDED.
NF	866	MAF	41	MOHAE01	271	ASPHALT,EMPTY FROM BUCKET TO "LO-BOY" CART STARTS=WITH REACH TO BUCKET SUSPENDED ON HOIST INCLUDES=ALL MOTIONS NECESSARY TO PULL BUCKET TO CART,RAISE AND TILT BUCKET TO EMPTY IN CART,LOWER BUCKET,AND PLACE BUCKET IN POSITION TO BE LOWERED ENDS=WITH RELEASE OF BUCKET CONDITIONS=PROCESS TIME TO POUR ASPHALT NOT INCLUDED.BUCKET IS NOT DISCONNECTED FROM HOIST
DNF	866	MAF	241	MOHAMXX	VARIABLE	ASPHALT,MOP ON SURFACE FROM WHEELED BUCKET STARTS=WITH GET MOP FROM BUCKET INCLUDES=ALL MOTIONS NECESSARY TO GET ASPHALT ON MOP,MOP ASPHALT ON ROOF,AND RETURN MOP TO BUCKET ENDS=WITH RELEASE OF MOP CASE 01 FIRST AREA 2.5 X 5 FEET 02 EACH ADDITIONAL AREA 2.5 X 5 FEET (REQUIRES MOVING WHEELED BUCKET TO NEXT AREA)
DNF	866	MAF	MOHBFO1	MOHBFO1	212	BUCKET,FILL WITH HOT ASPHALT FROM KETTLE STARTS=WITH BUCKET IN HAND INCLUDES=ALL MOTIONS NECESSARY TO BEND,PLACE BUCKET UNDER KETTLE SPOUT,OPEN SPOUT,CLOSE SPOUT,LIFT BUCKET FROM SPOUT,AND ARISE ENDS=WITH BUCKET OF ASPHALT IN HAND CONDITIONS=PROCESS TIME FOR BUCKET TO FILL NOT INCLUDED.FILLED BUCKET WEIGHS TO 40 POUNDS.
NF	866	MAF	35	MOHBRO1	198	BUCKET(EMPTY),REMOVE FROM HOIST AND ATTACH FULL BUCKET AT GROUND LEVEL STARTS=WITH FULL BUCKET IN HAND INCLUDES=ALL MOTIONS NECESSARY TO BEND,SET BUCKET BY HOIST,GET HOIST ROPE,OPEN HALLYARD CLASP,MOVE CLASP OFF EMPTY BUCKET,PUT CLASP ON HANDLE OF FULL BUCKET,MOVE FULL BUCKET IN POSITION FOR HOISTING,AND MOVE EMPTY BUCKET ASIDE ENDS=WITH ARISE,EMPTY BUCKET IN HAND CONDITIONS=APPLICABLE TO HANDLING BUCKETS OF HOT ASPHALT OR SIMILAR WITH UP TO 45 POUNDS ENW.
DNF	866	MAF	89	MTLFCXX	VARIABLE	FELT(ROOFING),CUT WITH KNIFE,PER LINEAR FOOT STARTS=WITH WALK TWO PACES TO FELT TO BE CUT INCLUDES=ALL MOTIONS NECESSARY TO KNEEL BY FELT,MOVE KNIFE TO FELT AND CUT ONE LINEAR FOOT ENDS=WITH ARISE CONDITIONS=DOES NOT INCLUDE TIME TO GET OR ASIDE KNIFE CASE 01 FIRST LINEAR FOOT 02 EACH ADDITIONAL LINEAR FOOT(INCLUDES MOVE TO NEXT CUT AND CUT FELT)

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# DEFENSE WORK MEASUREMENT STANDARD TIME DATA ELEMENTS

DATA SOURCE	OCCUP- ATION	QUALITY	SOURCE CODE	DWMSTOP ELEMENT	TMU VALUE	OPERATION/ELEMENT DESCRIPTION
NF	866	MAF	110	MTLGS01	261	GRAVEL, SPREAD WITH SHOVEL, PER SHOVELFUL STARTS-WITH SHOVEL IN HANDS INCLUDES-ALL MOTIONS NECESSARY TO BEND, GET SHOVELFUL OF GRAVEL FROM PILE, ARISE, TURN, AND SWING SHOVEL EIGHT TIMES BACK AND FORTH TO THINLY SPREAD GRAVEL ENDS-WITH SHOVEL IN HANDS CONDITIONS-APPLICABLE TO SPREADING GRAVEL OVER FLOOD COAT OF ASPHALT OR SIMILAR